# Large Filing Separator Sheet

Case Number: 09-1066-EL-BGN

File Date: 12/21/09

Section:

Number of Pages:

200

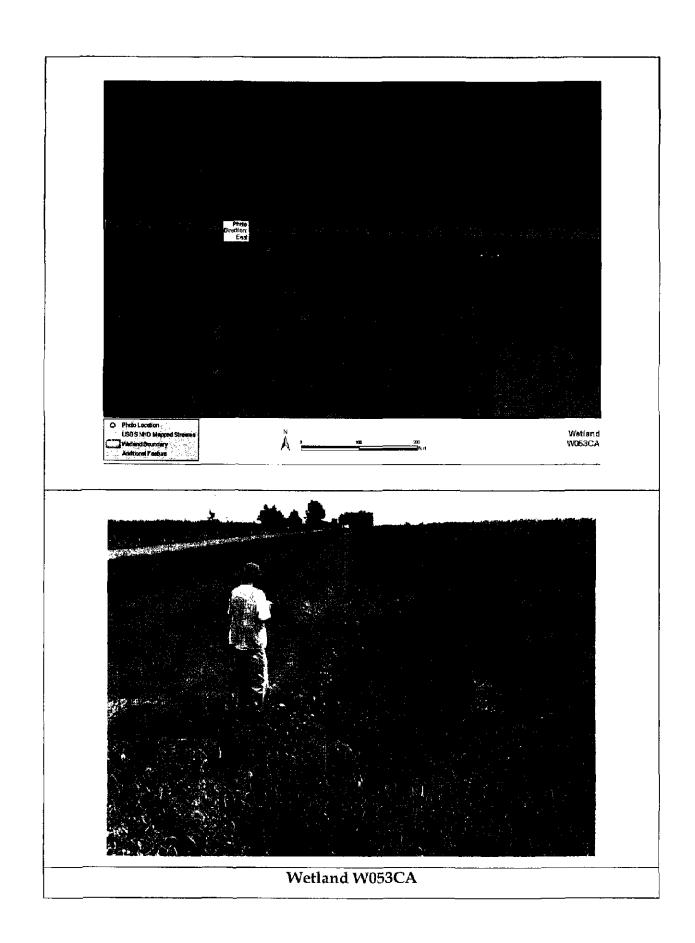
Description of Document:

Application

	Site: W	053AA	Rater(s): Matthew Nechvatal	Date: 09/20/09
	1	1	Metric 1. Wetland Area (size).	
	max 6 pls.	lezosdura	Selectione size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	•
	1	2	Metric 2. Upland buffers and surrounding land us	3 <b>e</b> .
•	max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)  LOW. Old field (>10 years), shrubland, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field.  HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
	7	9	Metric 3. Hydrology.	
	més 30 pts.	Subtokel	3a. Sources of Water. Score all that apply.  3b. Connectivity, Score all that a High pH groundwater (5)  Other groundwater (3)  3b. Connectivity, Score all that a 100 year floodplain (1)  Between stream/lake an	e.g. forest), complex (1) e.g. forest), complex (1) d comidor (1) n. Score one or dbl check. undated/saturated (4) urated (3) t) upper 30cm (12in) (1)
	3	12	Metric 4. Habitat Alteration and Development.	**************************************
	max 20 pls.	subtotale	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)	
	(	12	Ac: Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (8) Recovering (3) Recent or no recovery (1) Recent or no recovery (1) Recovering (3) Recent or no recovery (1) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recovering (9) Recovering (1) R	i removal

Site:		R	ater(s):	Date:
	1	]		
		1		
	ubtotal this pa	<b>7</b>		
0	0	Metric 5. Special We	tlande	
		Check all that apply and score as indicated.	manus.	
max 10 pts.	Subtotal	Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetland (5)		
		Lake Erie coastal/tributary wetland		10)
		Lake Erie coastal/tributary wetland		
		Lake Plain Sand Prairies (Oak Op- Relict Wet Prairies (10)	euluĝs) (10)	
		Known occurrence state/federal th	restened or endangered s	species (10)
		Significant migratory songbird/wat	<del>-</del>	• • •
		Category 1 Wetland. See Question		•
1	1		348 . 4	
		JMetric 6. Plant comi	nunities, inte	erspersion, microtopography.
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation Communit	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed Emergent	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats		vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Select only one. High (5)	Alaendiya Flaggeistian	of Margabation Charlifu
		Moderately high(4)	Narrative Description	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation.
		Low (1)		although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generallyw/o presence of rare
		or deduct points for coverage	high	threatened or endangered spp  A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)	*** <b>9</b> : *	and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered spp
		Nearly absent <5% cover (0)		
		Absent (1)	Mudflet and Open Wa	Absent <0.1ha (0.247 acres)
		6d. Microtopography.  Score all present using 0 to 3 scale.	0	Low 0.1 to <1ha (0.247 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Standing dead >25cm (10in) dbh		
		Amphiblan breeding pools	Microtopography Cov	
			0 1	Absent
			1	Present very small amounts or if more common
			2	of marginal quality  Present in moderate amounts, but not of highest
				quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
	=			and of highest quality
13	GRAN	D TOTAL(max 100 pts)		

Refer to the most recent ORAM Score Calibration Report for the scoring, breakpoints between wetland categories at the following address: http://www.epa.state.eh.us/idsw/401/401.html



SURVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: W053CA ASSOCIATED STREAM ID NO: S048CA					
DATE: 09/20/2009		CLIEN	IT/PROJECT NAME:	Heartian	d Wind LLC./ Blue Creek Wind Farm					
INVESTIGATORS: Hook			E/COUNTY: Ohio/		ROVER FILE: RAH090920.cor Qu			QUAD NAME: Convoy		
Hug 12 Cope: 04100007	0703	Town	NSHIP: Union			Рното	No.:	•		
WETLAND QUALITY: Lov	×				ND TYPE: Palustrine E: Emergent					
	PLANT SPE	CIES		S	TRATUM		INDICATOR	PERCENT COVER		
1. Xanthium strumarium	<u>m</u>				Herbaceous Fac			30 % 10 %		
Carex sp.     Setaria glauca	<del></del>				erbaceous erbaceous	-+	Fac Wet Fac	20 %		
4. Echinochloa sp.				Herbaceous Fac Wet				10 %		
5. 6.	<del></del>		· · · · ·		<u> </u>					
	Conomo perape as	OPI EACIA	TACTAL BACTAL	710: 00	71 <i>6</i> /7200			<b>7</b>		
PERCENT OF DOMINANT VEGETATION REMARKS:			, FACTY+, FACTY+,	, PAC+, OR	FAC (EXCLUE	ING PAL	-): 100			
				HYDRO	OLOGY					
RECORDED DATA?			Describe:							
DEPTH OF SURFACE WAT	TER: N/	A (in)		Di	EPTH TO SATE	JRATED S	OIL: >16 (in)			
DEPTH TO FREE WATER I	N PIT: Nor	ne (in)								
PRIMARY WETLAND IND	ICATORS:	<u>-</u>		SE	CONDARY W	ETLAND II	NDICATORS:			
Water Marks		[		Lo	cal Soil Surv	ey				
Sediment Deposits										
REMARKS: roadside dr	ainage									
				So	ILS					
MAP UNIT NAME (SERIE	s and Phase): 1	Hoytville silty o	lay, 0 percent slop	es (flats)	DRAINAGE CLASS: Very poorly drained					
TAXONOMY (SUBGROUP)	:		HELD OBSERVATION	NS CONFIRM	MAPPED TY	re. If No	SOIL TYPE ENCOUNT	ered?		
			Pro	FILE DI	ESCRIPT	ON				
Depth (Inches)	Horizo	NC	MATRIX COL (MUNSELL MO		MOTTLE COLOR (MUNSELL MOIST)			Texture, Concretions, Structure, etc.		
0-6	В		10YR 4/1		10YR 5/6 5%, 10YR 5/8 10%, and Rocky			Silt Loam		
Rock Refusal								····		
Hydric Soil Indicator	De+		· · · · · ·		_l					
Listed Hyd		Т	Gleyed		Ţ					
Remarks:					<u> </u>		<u> </u>			
			WEILA	ND DE	TERMIN.	ATION				
HYDROPHYTIC VEGETAT	ON PRESENT?	Yes			INT WITHIN					
WETLAND HYDROLOGY					WETLAND?					
HYDRIC SOILS PRESENT?										
NORMAL CIRCUMSTANC	ES? Yes		SIGNIFICAL	NTLY DISTU	RBED: No		Potential Pe	OBLEM AREA? No		
D	ESCRIPTIC	IN OF WEI	LAND CROS	SSING T	TYPES AND WETLAND QUALITY CRITERIA					
	70-4-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	MI OF TAR	DILID CHO	001110 1	TI DO UT.	ID VIL	THE TO GOAD	- 2 % Abbett to separate		

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

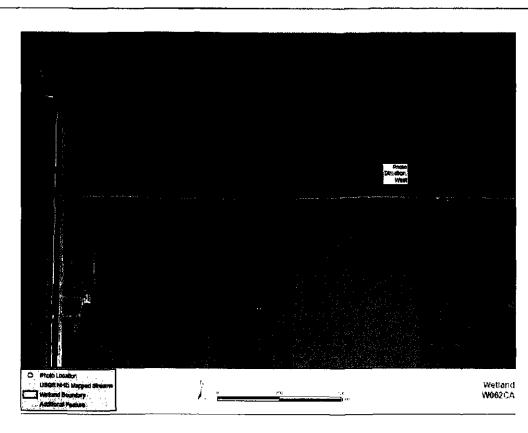
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or disching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site: W	053ca	Rater(s): RHOOK	Date: 9/20/09
<u></u>	٦		·
1 2	Metric 1. Wetland		
rmo; () pls. subtota	>50 acres (>20.2ha) (6 pts	3)	
	25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.	4	•
	3 to <10 acres (1.2 to <4h	a) (3 pts)	
	0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to	<0.12ha) (1 pt)	
	<0.1 acres (0.04ha) (0 pts	)	
1 3	Metric 2. Upland bu	uffers and surrounding land (	JSe.
max 14 pts. subtots		Select only one and assign score. Do not double che	ck.
	MEDIUM, Buffers averag	Om (164ft) or more around wetland perimeter (7) e 25m to <50m (82 to <164ft) around wetland perimete	
		ge 10m to <25m (32ft to <82ft) around wetland perime everege <10m (<32ft) around wetland perimeter (0)	exer (1)
	2b. Intensity of surrounding land us	e. Select one or double check and average. or older forest, prairie, savannah, wildlife erea, etc. (?)	
	LOW. Old field (>10 years	s), shrubland, young second growth forest. (5)	
		sidential, tenced pasture, park, conservation tillage, n open pasture, row cropping, mining, construction. (1)	ew fallow field. (3)
10 12			
10 13	Metric 3. Hydrology 3a. Sources of Water. Score all tha		wer all that another
anax 30 pts. subtots	High pH groundwater (5)	100 year f	loodplain (1)
	Other groundwater (3) Precipitation (1)		treem/lake and other human use tland/upland (e.g. forest), comple
	Seasonal/Intermittent surf Perannial surface water (h	ace water (3) Part of ripo	arian or upland corridor (1) ion/saturation. Score one or dbl
	3c. Maximum water depth. Select of	only one and assign score. Semi- to p	ermanently inundated/saturated (
	>0.7 (27.6ln) (3) 0.4 to 0.7m (15.7 to 27.6lr		Inundated/saturated (3) y inundated (2)
	<0.4m (<15.7ln) (1)		y saturated in upper 30cm (12in)
		2) Check all disturbances observed	
	Recovered (7) Recovering (3)	ditch point sour	ce (nonstormwater)
	Recent or no recovery (1)	dike road bed/f	
		weir dredging other other	
( 10	7		
6 19		Iteration and Development.	
mex 20 pts. subtob	4a. Substrate disturbance. Score o		
	Recovered (3) Recovering (2)	•	
	Recent or no recovery (1)		
	4b. Habitet development. Select or Excellent (7)	ily one and assign score.	1
	Very good (6) Good (5)		
	Moderately good (4)		•
_	Fair (3) Poor to fair (2)		
•	Poor (1) 4c. Habitat alteration. Score one or	double check and average.	
	None or none apparent (9	المستخدم والمستخدم والمستح	
	Recovered (6)	mowing shrub/sept	ling removal is/aquatic bed removal
	Recent or no recovery (1)	clearcuiting	
la		salective cutting // dredging woody debris removal farming	
	<b>L</b>	toxic pollutants nutrient er	utchment

Site:	Wo	53 C4	Rater(s): 7Z (	took_	Date: 9 20 09
	19				
	parabul Great Di				
	biotal first p				
	19	Metric 5. Special V	Vetlands.		
mex 10 pts.	subjetsi	Check all that apply and score as in			
lime to how		Bog (10)			
		Fen (10)			
		Old growth forest (10)			
		Mature forested wetland	(5) y watland-unrestricted hyd:	undown (48)	•
			y wetland-restricted hydrol	<del>-</del>	
		Lake Piain Sand Prairies	· •		
		Relict Wet Prairies (10)	• • • • • • •		
		L	iederal threatened or enda		
			gbird/water fowl habitet or o	<u> </u>	
		Category 1 Wedarid. Sec	e Question 1 Qualitative Ra	aung (+10)	
2	21	Matria & Plant and	amunitiaa inte	orenoreion miorot	onagraphy
		Metric 6. Plant cor	-		opograpny.
mmc 20 pts.	subtotal	6a. Wetland Vegetation Communit		Community Cover Scale  Absent or comprises <0.1ha (0.2	474 come) continuedo orga
		Score all present using 0 to 3 scale  Aquatic bed	·	Present and either comprises an	
		Emergent	•	vegetation and is of moderate	
		Shrub	•	significant part but is of low qua	,
		Forest	2	Present and either comprises sig	
		Mudfials		vegetation and is of moderate	quality or comprises a small
		Open water		part and is of high quality	
		Other	3 -	Present and comprises significan	
		<ol> <li>horizontal (plan view) intersper Select only one.</li> </ol>	804.	vegetation and is of high quality	
		High (5)	Narrative De	scription of Vegetation Quality	
		Moderately high(4)	low	Low spp diversity and/or predom	nance of nonnative or
		Moderate (3)	. <del></del>	disturbance tolerant native spe	
		Moderately low (2)	mod	Native app are dominant compor	
		Low (1)		although nonnative and/or dista can also be present, and speci	
		None (0)  6o. Coverage of invasive plants. F	rafer	moderately high, but generally	
		to Table 1 ORAM long form for list.		threatened or endangered app	and productions of long
		or deduct points for coverage	high	A predominance of native specie	s, with nonnative spp
		Extensive >75% cover (-		and/or disturbance tolerant nat	
		Moderate 25-75% cover	(-3)	absent, and high spp diversity	
		Sparse 5-25% cover (-1)		the presence of rare, threatene	d, or endangered spp
		Nearly absent <5% cover Absent (1)	= =	Open Water Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale		Low 0.1 to <1ha (0.247 to 2.47 a	ctes)
		Vegetated hummucks/lu		Moderate 1 to <4he (2.47 to 9.8)	
		Coarse woody debris >1	• •	High 4ha (9.88 acres) or more	
		Standing dead >25cm (1	· - · · · · · · · · · · · · · · · · · ·		
		Amphibian breeding pool		raphy Cover Scale	
				Absent Present very small amounts or if	Proper ADM Proff
			יד	of marginal quality	IIIMO VAIR(IVI)
			2	Present in moderate amounts, bu	it not of highest
			-	quality or in small amounts of h	<u> </u>
			3	Present in moderate or greater a	
			_	and of highest quality	
121	GRAI	ND TOTAL (max 100 pts	s)		

Refer to the most recent CRAM Score Calibration Report for the social breakpoints between wetland estagories at the following address: http://www.epa.etste.ah.vs/daw/401/401.html last revised 1 February 2001 jjm





Wetland W062CA

SURVEY TYPE: Blue Creek Wind Farm						WETLAND ID NO.: W062CA ASSOCIATED STREAM ID NO. N/A				
DATE: 10/15/2009		CLIENT/I	PROJECT NAME:	Heartl			ek Wind Farm			
Investigators: AF MN			OUNTY: Ohio/\			ROVER FILE: QUAD NAME: Scott R101509AFMN.cor				
Huc 12 Code: 041000070	)703	Townsh	up; Union			Рного No.: AF10/509_014				
WETLAND QUALITY: LOW	7				AND TYPE Palus PE: Emergent	D TYPE: Palustrine : Emergent				
	PLANT SPECIES	5			STRATUM	IN	DICATOR	PERCENT COVER		
<ol> <li>Typha latifolia</li> </ol>					Herbaceous		bligate	90 %		
Scirpus atrovirens     3.				<del> </del>	Herbaceous	<del></del>	bligate	10 % %		
4.								%		
5,			-					%		
6.			····							
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC+, OR F VEGETATION REMARKS: Agricultural ditch						ING FAC-): 1	00			
			_ ,	HYD	ROLOGY					
RECORDED DATA?	•		DESCRIBE:							
DEPTH OF SURFACE WAT	er: N/A (ii	1)			DEPTH TO SATU	rated Soil:	0 (in)			
DEPTH TO FREE WATER I	N <b>P</b> rr: 0 (in)									
PRIMARY WETLAND IND	CATORS:	<del></del>			SECONDARY WI	ETLAND INDIC	ATORS:			
Saturated Upper 12in										
REMARKS: Agricultural	ditch									
				5	SOILS					
MAP Unit Name (Series	AND PHASE): Hoy	tville silty clay	, 0 percent slop	es (flats	lats) Drainage Class: Very poorly drained					
TAXONOMY (SUBGROUP)	1	FIE	D OBSERVATION	N5 CONI	nhrm Mapped Type. If No, Soil Type Encountered?					
			Pro	FILE	DESCRIPT	ON .				
DEPTH (INCHES)	Horizon		MATRIX COL			IOTTLE COLI UNSELL MO		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-4	A		10YR 4/2			7.5YR 5/8		Clay Loam		
4-16+	В		10YR 4/2			2.5YR 4/8		Clay Loam		
Hydric Soil Indicator	15:									
Listed Hydr	ric		Gleyed		1					
Remárks:	······································			<u> </u>	-					
			WETLA	ND I	DETERMIN	ATION				
Hydrophytic Vegetat	ION PRESENT? Yes		is This Sa	MPLING	POINT WITHIN !	WETLAND?	Yes			
WETLAND HYDROLOGY	PRESENT? Yes		IS THIS A	ISOLAT	TED WETLAND?	No				
Hydric Soils Present?	Yes									
NORMAL CIRCUMSTANC	BS? Yes		SIGNIFICA	NTLY DI	STURBED: No		POTENTIAL PROB	lem Area? No		
D	ESCRIPTION	OF WETL	AND CRO	SSINC	G TYPES AN	ID WETL	AND QUALIT	y Criteria		
			_							

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

SURVEY TYPE: Blue Creek							WETLAND ID NO.: U062CA					
- 40/45 (5550					7 (1 )	ASSOCIATED WETLAND ID NO: W062CA  nd Wind LLC./ Blue Creek Wind Farm						
DATE: 10/15/2009	<del>-</del>					1 Wind LL			rm			
Investigators: AF MI	N		STATE/CO	UNTY: Ohio/Va	an Wert	ert QUAD NAME: Scott						
Huc 12 Cops: 04100007	0703		Townshii	?: Union			Рното 1	No.: AF101509_0	15			
Wetland Quality: N/	A					AND TYPE N/A (PE: Upland						
	PLANT SPI	CIES			S1	STRATUM INDICATOR			PERCENT	COVER		
1. Toxicodendron radio	ans		* *		He	rbaceous		Fac	20	%		
2. Glycine max						rbaceous		Upland	60			
3. Cornus sp. 4. Morus rubra						rbaceous Shrub		Fac Fac Up	20 10			
5.						Situe		rac Op		<u> </u>		
6.									_	6		
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL,	FACW, FAC	CW+, FACW-, F	AC+, or F	AC (EXCLU	DING FAC-	): 40				
VEGETATION REMARKS:												
					Hydro	DLOGY			-			
RECORDED DATA?			1	Describe:								
DEPTH OF SURFACE WAT	ter: N/	A (in)			Dei	PTH TO SATI	JRATED SO	IL: >16 (in)				
DEFTH TO FREE WATER	IN PIT: No	ne (in)										
PRIMARY WETLAND INC	ICATORS:				Sec	ONDARY W	ETLAND IN	DICATORS:				
None		ļ			_							
Remarks:		}				<u>.</u> .						
					So	ils						
MAP UNIT NAME (SERIE	S AND PHASE);	Hoytville	silty clay, (	percent slopes	oes (flats) Drainage Class: Very poorly dr					poorly drained		
TAXONOMY (SUBGROUP)	):		Field	OBSERVATIONS	CONFIRM	ONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?						
	<u>.</u>	_		Prof	ILE DE	SCRIPT	ION					
Depth (Inches)	Horize	ON	l .	MATRIX COLO IUNSELL MOI			fottle C Iunsell I		TEXTURE, CON STRUCTU			
0-16+	A			10yr 4/2			7.5yr 5/8	10%	Clay L	oam		
					•	<u>.l.</u>				···		
Hydric Soil Indicator	RS:	<del></del> -										
Remarks:	· · · · · · · · · · · · · · · · · · ·				1					74.4.4.		
				WETLAN	ND DET	ERMIN	ATION					
Hydrophytic Vegetat	TION PRESENT?	No		Is This Sam								
WETLAND HYDROLOGY	Present? No			Is This An I								
Hydric Soils Present?												
NORMAL CIRCUMSTANC				SIGNIFICANT	LY DISTU	RBED: No		POTENTIA	PROBLEM AREA? No			
D	ESCRIPTION	ON OF	WETLA	ND CROSS	SING T	YPES AN	D WE	TLAND QUA	ALITY CRITERIA			
HIGH QUALITY WET						·	•					
					u u uu	que est as ca						

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

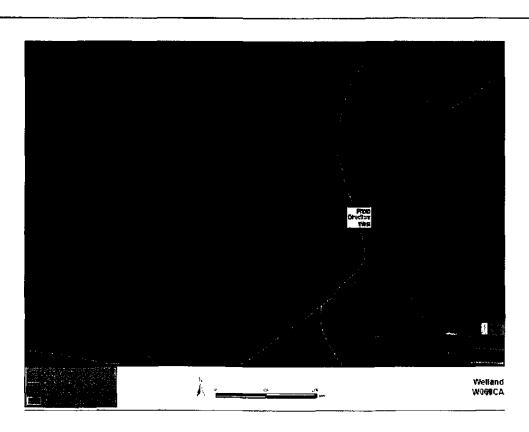
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

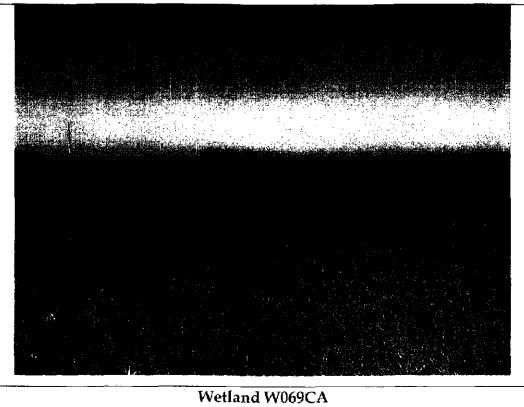
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site: W062CA		Rater(s): Matthew No	echvatal	Date: 10/15/09
1 1	  Metric 1. Wetland a	Area (size).		
max 6 pts. aubtotel	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2  10 to <25 acres (4 to <10.1ha)  3 to <10 acres (1.2 to <4ha) (3  0.3 to <3 acres (0.12 to <1.2ha  0.1 to <0.3 acres (0.04 to <0.1  <0.1 acres (0.04ha) (0 pts)	(4 pts) pts) a) (2pts)		
1 2	Metric 2. Upland b	uffers and surro	unding land เ	JSO.
max t4 pts. subtotal	2a. Calculate average buffer width. Sel WIDE. Buffers average 50m ( MEDIUM. Buffers average 25 NARROW. Suffers average 11 VERY NARROW. Buffers average 11 VERY LOW. 2nd growth or oil LOW. Old field (>10 years), si	ect only one and assign score. Do 164ft) or more around wetland peri m to <50m (82 to <164ft) around w 0m to <25m (32ft to <82ft) around arage <10m (<32ft) around wetland	o not double check, imeter (7) retland perimeter (4) welfand perimeter (4) perimeter (0) erage. fe area, etc. (7) rest. (5) reation tillage, new fallow field	
11 13	Metric 3. Hydrolog	y.		
max 30 pts. Subtotal	3a. Sources of Water. Score all that ap High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake of the seasonal/Intermittent surface) 2c. Maximum water depth. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic recovered (7) Recovering (3) Recent or no recovery (1)	water (3) or stream) (5) 3d. one and assign score.	Part of wetland/upland Part of riparian or upla Duration inundation/saturat Semi- to permanently Regularly inundated/se Seasonally inundated Seasonally saturated it	and other human use (1) d (e.g. forest), complex (1) and corridor (1) ion. Score one or dbl check, inundated/saturated (4) aturated (3) (2) in upper 30cm (12in) (1)
12 25	<u> </u>	stormwater input	other	
mex 20 pts. subtotal	Metric 4. Habitat A  4a. Substrate disturbance. Score one of		velopment.	
	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Hebitat development. Select only of Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or do	ne and assign score.		,
25 substical this pa	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sepling removal herbaceous/aquatic be sedimentation dredging tarming nutrient enrichment	<b>.</b>

ite:		R	ater(s):	Date:
	3	]		·
	]			
	subtotal this pag			
Λ	0			
0	١ '	Metric 5. Special We	tlands.	
: 10 pts.	subtotal	Check all that apply and score as indicated.		
•		Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetland (5)		4.00
		Lake Erie coastal/tributary wetland		
		Lake Erie coastal/Inbutary wetland Lake Ptein Sand Prairies (Oak Ope		3)
		Relict Wet Praires (10)	e: wide\ (in)	
		Known occurrence state/federal th	restened or endangere	ed species (10)
		Significant migratory songbird/water		
		Category 1 Wetland. See Questio	n 1 Qualitative Rating (	(-10)
3	3			
		<b>-</b> ,	•	terspersion, microtopography
c 20 pts.	eubtotal	6a. Wetland Vegetation Communities.	Vegetation Commu	
		Score all present using 0 to 3 scale.  Aquatic bed	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		2 Emergent	•	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a
		Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Mudflats	_	vegetation and is of moderate quality or comprises a small
		Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
		Selectionly one.		
		High (5)		on of Vegetation Quality
		Moderately high(4) Moderate (3)	low	Low spp diversity and/or predominance of nonnative or
		Moderately low (2)	med	disturbance tolerant native species  Native spp are dominant component of the vegetation,
		Low (1)	HEAL	although nonnative and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with nonnative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)  Mearly absent < 5% cover (0)		the presence of rare, threatened, or endangered spp
		Absent (1)	Mudflet and Onen 1	Nater Class Quality
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more
		Coarse woody debris >15cm (6in)	Microtopography C	
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Microtopography C	over Scale Absent
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Microtopography C	Cover Scale  Absent  Present very small amounts or if more common
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Microtopography C O 1	Cover Scale  Absent  Present very small amounts or if more common  of marginal quality
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Microtopography C	Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	Microtopography C O 1	Cover Scale  Absent  Present very small amounts or if more common  of marginal quality

GRAND TOTAL(max 100 pts)





SURVEY TYPE: Blu	e Creek W	ind Farm			WETLAN	VD ID	No.: W069CA	\		
					Associat	ED STR	EAM ID NO: N/A			
DATE: 09/18/2009		CLIE	NT/PROJECT NAME:	Heartla	nd Wind LL	C./ BI	ue Creek Wind Fa	rm		
INVESTIGATORS: D.Wes	it, M. Nechvatal	STAT	E/COUNTY: Ohio/	Paulding	ulding ROVER FILE: R09		er File: R091809AD	W.cor	QUAD NAME Payne	
Huc 12 Code: 04100007	1003	Town	NSHIP: Blue Creek	ς.		Рно	ro Na.: 069A8W			
WETLAND QUALITY: Lo	w				ND TYPE Palus E: Emergent	trine	<del></del>			
	PLANT SPE	CIES			STRATUM		INDICATOR		PERCENT COVER	
1. Glycine max					Herbaceous		Upland		80 %	
2. Morus rubta		·			Shrub		Fac Up		10 %	
3. Ambrosia trifida					Herbaceous		Fac		10 %	
<u>4.</u> 5.									<u>%</u>	
6.			··	ullet			<u></u>		<u> </u>	
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL. FACW	. FACW+. FACW-	FAC+.0	R FAC (EXCLUE	DING F	AC-): 10			
VEGETATION REMARKS:										
				Hydi	ROLOGY					
RECORDED DATA?			DESCRIBE:		•					
DEPTH OF SURFACE WA	rer: N/	A (in)		3	<b>Дерти то Sa</b> t	RATE	901L: 12 (in)			
DEPTH TO FREE WATER	IN PIT; 12 (	(in)								
PRIMARY WETLAND IND	ICATORS:	<del>,</del>			SECONDARY W	ETLANE	INDICATORS:			
Drainage Patterns					Local Soil Surv	ey				
Saturated Upper 12in								<u> </u>		
REMARKS: farmed wet	land, crops pre	sent, but suppre	essed in areas, com	n ag field t	to N					
	*			S	OILS					
MAP UNIT NAME (SERIE	s and Phase):	Saranac silty cla	y loam, occasiona	lly floode	d			DRAINAGE CLASS: Poorly Drained		
TAXONOMY (SUBGROUP	): 		FIELD OBSERVATIO	NS CONFI	RM MAPPED TY	PE. IF	NO, SOIL TYPE ENCOU	NTEREL	?	
			PRO	FILE I	DESCRIPTI	ON		·- ·		
DEPTH (INCHES)	Horizo	ON	MATRIX COI (MUNSELL MO				E COLOR LL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-12	A		2.5YR 3/1			No m	nottles		Silt loam	
12+	В		2.5YR 3/2				YR 6/6		Silt loam	
Hydric Soil Indicator		_						<del></del>		
Listed Hyd	ric	<u> </u>	Gleyed							
Remarks:										
			WETLA	ND D	ETERMIN.	ATIC	ON			
HYDROPHYTIC VEGETAT	ION PRESENT?	No	IS THIS SA	MPLING P	OINT WITHIN	WETL	AND? Yes			
WETLAND HYDROLOGY	Present? No		Is This Ar	N ISOLATE	D WETLAND?	No				
Hydric Soils Present										
NORMAL CIRCUMSTANC			SIGNIFICA	NTLY DIS	TURBED: Yes		POTENTIAL	L PROBL	em Area? No	
D	ESCRIPTIO	ON OF WE	LAND CRO	SSING	TYPES AN	ID W	ETLAND QUA	<b>ALIT</b>	CRITERIA	
	والمراكب والمراكب المساكن									
HIGH QUALITY WET	AND: no indic	ation of stress o	r disturbance in w	retland or	adjacent area	- diver	se and mature veget	ation ty	pes – hydrologic and soil indicators	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

SURVEY TYPE: Blue Creek						WETLAND ID NO.: U069AA			
					Associated Wetland ID No: W069AA				
DATE: 09/18/2009		CLIENT	PROJECT NAME:	Heartland	nd Wind LLC./ Blue Creek Wind Farm				
Investigators: D.West	, M.Nechvatal	STATE/	COUNTY: Ohio/F	Paulding		Quad Name:	Payne		
HUC 12 CODE: 041000071	.003	Towns	HIP: Blue Creek		_	Рното No.: 06	9A9S		
WEILAND QUALITY: N/A	•			WETLAND SUBTYPE:	Type: N/A Upland				
	PLANT SPECIE	3		Sı	RATUM	INDIC	ATOR	PERCENT COVER	
1. Daucus Carota	** ** ** *** *** *** *** *** *** *** *				rbaceous	Up	and	10 %	
2. Trifolium pratense					rbaceous		Up-	20 %	
3. Seteria sp.	·····				rbaceous		Up	30 %	
4. Poa sp				He	rbaceous	Fac	Up	40 %	
6.					% %				
		107 FACTAL T	TA CEAT . TA CEAT	F1-01 F		TAG NO		70	
PERCENT OF DOMINANT	SPECIES THAT ARE C	JBL, FACW, I	-ACW+, FACW-,	FAC+, OR E	AC (EXCLUI	DING FAC-J: U	·		
Vegetation Remarks:									
				HYDRO	DLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WAT		ո) ՝		De	TH TO SATE	irated Soil: (i	n)		
DEPTH TO FREE WATER I	N Prr: (in)								
PRIMARY WETLAND IND	CATORS:			SEC	SECONDARY WEILAND INDICATORS:				
None									
Remarks:									
		=		So	LS				
Map Unit Name (Series	AND PHASE): Sara	nac silty clay	loam, occasional	ly flooded			I.	PRAINAGE CLASS: Poorly drained	
TAXONOMY (SUBGROUP)					CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?				
			Pro	FILE DE	SCRIPT	ION			
Depth (Inches)	Horizon		MATRIX COL (MUNSELL MO			IOTTLE COLOR IUNSELL MOIS		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
			· · · · · · · · · · · · · · · · · · ·						
no soils pit dug		Į.	no soils pit dug		1				
no soils pit dug no soils pit dug			no soils pit di	ug					
			no soils pit di	ug					
	S:		no soils pit di	ug					
no soils pit dug	S:		no soils pit di	ug	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
no soils pit dug	S:		no soils pit di	ug					
no soils pit dug  Hydric Soil Indicator	S:					ATTON			
no soils pit dug  Hydric Soil Indicator  Remarks:			WETLA	ND DE					
no soils pit dug  HYDRIC SOIL ÍNDICATOR  REMARKS:  HYDROPHYTIC VEGETAT	ION PRESENT? No		WETLA IS THIS SA	ND DE	NT WITHIN	AWETLAND? No			
no soils pit dug  HYDRIC SOIL ÎNDICATOR  REMARKS:  HYDROPHYTIC VEGETAT  WETLAND HYDROLOGY	ON PRESENT? No		WETLA IS THIS SA	ND DE	NT WITHIN	AWETLAND? No			
no soils pit dug  HYDRIC SOIL ÎNDICATOR  REMARKS:  HYDROPHYTIC VEGETAT  WEILAND HYDROLOGY  HYDRIC SOILS PRESENT?	ion Present? No Present? No No		WETLA IS THIS SA IS THIS AN	MPLING POI	nt Within . Vetland?	AWETLAND? No			
no soils pit dug  HYDRIC SOIL ÍNDICATOR  REMARKS:  HYDROPHYTIC VEGETAT  WETLAND HYDROLOGY  HYDRIC SOILS PRESENT?  NORMAL CIRCUMSTANC	ION PRESENT? No PRESENT? No No SS? Yes		WETLA IS THIS SAI IS THIS AN	MPLING POI ISOLATED V	NT WITHIN A WETLAND? RBED: No	A WETLAND? No	POTENTIAL	PROBLEM AREA? No	
no soils pit dug  HYDRIC SOIL ÍNDICATOR  REMARKS:  HYDROPHYTIC VEGETAT  WETLAND HYDROLOGY  HYDRIC SOILS PRESENT?  NORMAL CIRCUMSTANC	ION PRESENT? No PRESENT? No No SS? Yes	OF WETT	WETLA IS THIS SAI IS THIS AN	MPLING POI ISOLATED V	NT WITHIN A WETLAND? RBED: No	A WETLAND? No	POTENTIAL	PROBLEM AREA? No LITY CRITERIA	

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics -- provides suitable habitat for wildlife and vegetation -- associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

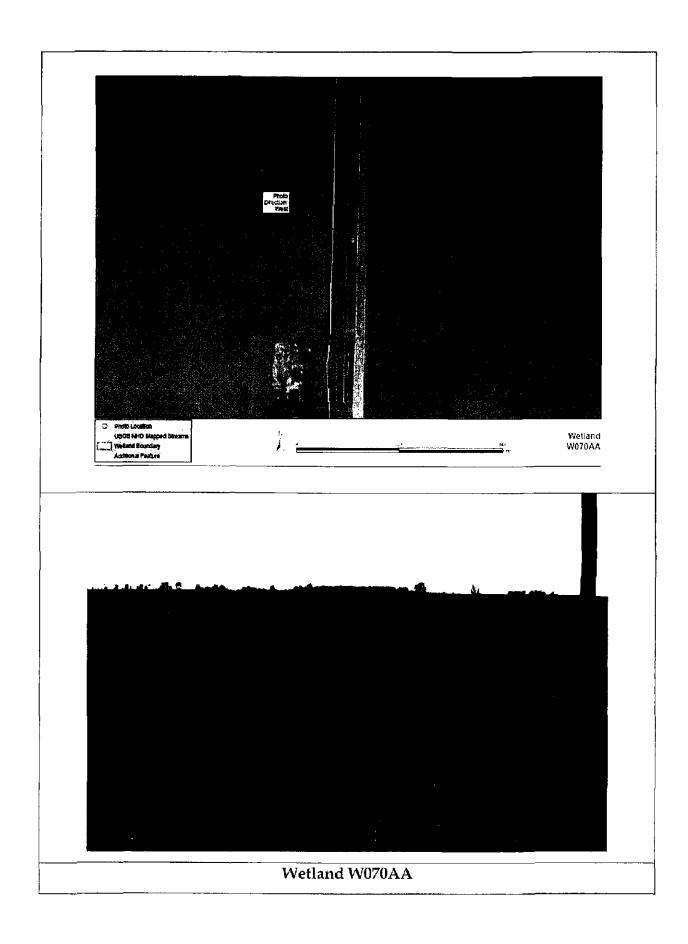
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site: ( Site )	X. P.	Rater(s): 1 / 20-	a Herrina	Date: 🖺 👶 🔌
22	Metric 1. Wetland	Area (size).		
navitipis sustatut S	eloct one size class and assign score.			
	>50 acres (>20.2ha) (6 pts)	95 - 1 / C - 4 /		
	25 to <50 acres (10.1 to <20.)	· ·		
	3 to <10 acres (1.2 to <4ha) (			
	0.3 to <3 acres (0.12 to <1.2)			
	0.1 to <0.3 acres (0.04 to <0.	12ha) (1 pt)		
	<0.1 acres (0.04na) (0 pts)			
113	Wetric 2. Upland b	ouffers and surr	ounding land u	se.
	e. Calculate average buffer width. Se			
		(164ft) or more around wetland p		
		5m to <50m (82 to <164ft) around		
		10m to <25m (32lt to <82lt) aroun		
•	b. Intensity of surrounding land use.	erage <10m (<32ft) around wetter Soloct one or doubte shoot and a	= =	
4		select one of doopse trieck and a older forest, prairie, savannah, wik		
		shrubland, young second growth t		
	MODERATELY HIGH. Resid	tential, fenced pasture, park, cons	ervation tillage, new fallow field.	. (3)
·	HIGH. Urban, Industrial, ope	n pesture, row cropping, mining, c	construction. (1)	
10.5 13.51	Metric 3. Hydrolog	gy.		
	le. Sources of Water. Score all that a		b. Connectivity. Score all that	apply.
	High pH groundwater (5)		100 year floodplein (1)	
	Other groundwater (3)		Between stream/lake a	nd other human use (1) (e.g. forest), complex (1)
	Precipitation (1) Seasonal/Intermittent surface	weier (3)	Part of riparian or uplan	
	Perennial surface water (lake		24. Duration inundation/saturate	
3	c. Maximum water depth. Select only		Semi- to permanently in	rundated/saturated (4)
	>0.7 (27.5in) (3)		Regularly inundated/set	· •
	0.4 to 0.7m (15.7 to 27.6in) (	2)	Seasonally inundated () Seasonally beturated in	•
	<ul> <li>&lt;0.4m (&lt;15.7ln) (1)</li> <li>3e. Modifications to natural hydrologic</li> </ul>	regime. Score one or double che	- المعصدال	oppo seem ( rem) ( 1)
	None or none apparent (12)	Check all disturbances observe	- Carlo	
	Recovered (7)	ditch	point source (nonstorm	water)
	X Recovering (3)	Üle	filling/grading	, M
	Recent or no recovery (1)	dike	road bed/RR track	
		weir	dredging	
		stormwater input	other	
3 165	Metric 4. Habitat /	Alteration and D	evelopment.	<del></del>
	ta. <u>Subs</u> trate disturbance. Score one		•	
	None or none apparent (4)	_		
	Recovered (3)			
	Recovering (2) Recent or no recovery (1)			
4	4b. Habitat development. Select only	one and assign score.		
	Excellent (7)	-		
	Very good (6)			
	Good (5) Moderately good (4)			
	Fair (3)		•	
	Poer to fair (2)			·
	Poor (1)			
4	4c. Habitat atteration. Score one or do	puble check and average.		
	None or none apparent (9)	Check all disturbances observe		
	Recovered (6)	mowing	shrub/sapling removal	
	Recovering (3) Recent or no recovery (1)	grazing clearcutting	herbaceous/aquatic bed sedimentation	FEIRDYRI
1	The second of the second of the	selective cutting	dredging	
11651		woody debris removal	✓ farming	
		toxic pollutants	hutrient enrichment	1
solvistat this page		<u></u>		

Site: いのたウォッ Ra	ter(s): 👙 👵 -		Date:
Substitution page  Metric 5. Special Wet	tlands.		
max 10 pis. suercesi Check all that apply and score as indicated.			•
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coostal/tributory wetland Lake Eric coastal/tributory wetland Lake Plain Sand Prairies (0ak Ope Relict Wet Praires (10) Known occurrence state/fedoral the Significant migratory songbird/wate	restricted hydrology (5) nings) (10) ealened or endangered	d species (10)	
Category 1 Wetland. See Question	1 Qualitative Rating [-	10)	
Metric 6. Plant comn	nunities in	tarenersian mid	crotonography
max zu ps. subotu 6a. Welland Vegetation Communities.	Vegetation Commun	<del>-</del>	notopograpny.
Score all present using 0 to 3 scale.	0		0.2471 acres) configuous area
Aqualic bed	1	Present and either comprises	
<u>c</u> €mergent		vegetation and is of modera	ite quality, or comprises a
Shrub		significant part but is of low	
Forest	2	Present and either comprises	-
/ Muditats		f "	ite quality or comprises a small
Copen water	3	part end is of high quality	cant part, or more, of welland's
6b. horizontal (plan view) Interspersion.	3	vegetation and is of high ou	
Select only one.		Together and to of the gir do	any
High (5)	Narrative Descriptio	n of Vegetation Quality	
Moderately high(4)	low	Low spp diversity and/or pred	ominance of nonnative or
Moderate (3)		disturbance tolerant native s	
Moderately low (2)	mod	Native spp are dominent com	ponent of the vegetation,
Low (1)		-	listurbance tolerant native spp
✓ None (0)		can also be present, and sp	•
6c. Coverage of invasive plants. Refer		moderately high, but genera	
to Table 1 ORAM long form for list. Add or deduct points for coverage	- hink	threatened or endangered s	
Extensive >75% cover (-5)	high	A predominance of native spa	native spp absent or virtually
Moderate 25-75% cover (-3)		)	ity and often, but not always,
Sparse 5-25% cover (-1)		the presence of rare, threate	
Nearly absent <5% cover (0)			
Absent (1)	Mudilat and Open W	الناقري والبابات والمستحدد والمستحد والمستحدد والمستحد والمستحدد و	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using D to 3 scole.	1	tow 0.1 to ~1he (0.247 to 2,4)	#1- <del>11-11-11-1-1-1</del>
Vegetated hummucks/flussucks	2 3	Moderate 1 to saha (2.47 to 9	
✓ Coarse woody debris ≥15cm (6in) ✓ Standing dead >25cm (10in) dbh	- 3	High 4ha (9.88 acres) or more	• • • • • • • • • • • • • • • • • • •
Amphibian breeding pools	Microtopography Co	over Scale	
1 milyimotes proceding proces	0	Absent	
	1	Present very small amounts of	r if more common
		of marginal quality	
	2	Present in moderate amounts,	-
,	3	quality or in small amounts or Present in moderate or greate	
•	J	and of highest runlity	· 647447-(1U
		When a war ward a track the farmed	

[7.5] GRAND TOTAL (max 100 pts)

weller to the most recont CHEAR Score Children on Report for the scoring bloompoints borween website consported at the following electrics. Interferences in the following electrics.





SURVEY TYPE: Blue	URVEY TYPE: Blue Creek Wind Farm						WETLAND ID No.: W070AA				
					ASSOCIAT	ed Stream I	d No: N/A				
DATE: 09/17/2009		Clien	r/Project Name: He	artland	Wind LLO	C./ Blue Cr	eek Wind F	arm			
Investigators: D.West	, M. Nechvatal	STATE	COUNTY: Ohio/Pauli	ding		Rover Fili	e: R091709AL	)W,cor	QUAD NAME: Convoy		
Huc 12 Code: 041000071	.003	Town	SHIF: Blue Creek			Рното No	:: 070A69N &	070A <b>70</b> 9	3		
WETLAND QUALITY: LOW	ı				Type: Palus Emergent	trine					
	PLANT SPE	CIES	ĺ	St	RATUM	IN	DICATOR		PERCENT COVER		
1. Morus rubra					Shrub		Fac Up		10 %		
2. Phalaris arundinacea				He	rbaceous	F	ac Wet +		90 % %		
3. 4.				_							
5						%					
6,									<u>%</u>		
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, FACW,	FACW+, FACW-, FAC	C+, OR F	AC (EXCLUE	ING FAC-):	100				
Vegetation Remarks:	roadside diich,	linear wetland,	drainage for adj ag fie	eld to W	7						
			H	YDRO	DLOGY						
RECORDED DATA?			Describe:								
DEPTH OF SURFACE WAT	er: N/	A (in)		DE	PTH TO SATI	RATED SOIL:	>16 (in)				
DEPTH TO FREE WATER I	N PIT: No	ne (in)									
PRIMARY WETLAND IND	CATORS:			SECONDARY WETLAND INDICATORS:							
Drainage Patterns				Loc	al Soil Surv	ey					
				FAC	C Neutral T	est					
REMARKS: roadside dit	ch; linear wetla	nd, drainage for	adj ag field to W								
				Sol	ILS						
MAP UNIT NAME (SERIE	and Phase);	Hoytville silty cl	ay, 0 percent slopes (f	lats)				DRAINA	GE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	:	P	IELD OBSERVATIONS C	ONFIRM	MAPPED TY	PE. IF No, Sc	IL TYPE ENCO	UNTERED	)?		
			Profii	LE DE	SCRIPT	ON					
DEPTH (INCHES)	Horizo	М	MATRIX COLOR (MUNSELL MOIST	"		IOTTLE COI	1	TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-3	A		10YR 5/1			No mottles	;		Silt loam		
3-12+	В		2.5YR 5/1		1	10% 10YR 6,	/6		Clay loam		
Hypric Soil Indicator											
Listed Hyd		7	Gleyed					$\neg  au$	<del></del>		
REMARKS:			Cicyc					<u> </u>			
			WETLANI	D DET	ΓERMIN	ATION					
HYPROPHYTIC VEGETAT	ION PRESENT?	Yes	Is This Sampl	ING POI	NT WITHIN	WETLAND?	Yes				
WETLAND HYDROLOGY	PRESENT? Yes		Is This An Iso	LATED	WETLAND?	No					
HYDRIC SOILS PRESENT?	Yes										
NORMAL CIRCUMSTANC			SIGNIFICANTLY	Y DISTUR	RBED: No		POTENTI	al Probl	em Area? No		
D	ESCRIPTIC	ON OF WET	LAND CROSSI	NG T	YPES AN	ID WETI	AND QU	JALITY	CRITERIA		
are characteristic of the s	pecific commu	nity type – provi	ides suitable habitat fo	or wildli	ife – high qu	ality perenn	iai streams ar	e often ol	pes – hydrologic and soil indicators bserved. Iv altered natural vegetation.		

hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perenrual or intermittent streams are of relatively good quality

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

SURVEY TYPE: Blue Creek WET							WETLAND ID No.: U070AA			
						ASSOCIATED WETLAND ID No: W070AA				
DATE: 09/17/2009			CLIENT/PR	OJECT NAME:	Heartland	Wind LL	C./ Blue C	reek Wind F	arm	
Investigators: D.Wes	t, M. Nechvatal		STATE/CO	UNTY: Ohio/I	Paulding		QUAD NA	IME: Convoy		
Huc 12 Code: 04100007	1003		Township	: Blue Creek		PROTO No.: 970A72S				
WETLAND QUALITY: N	A	<u> </u>			WETLAND SUBTYPE	Tyre: N/A Upland	<u> </u>			
	PLANT SPE	CIES			<b>S</b> 1	TRATUM	ı	NDICATOR	Percent	COVER
1. Trifolium pratense						rbaceous		Fac Up -	10	%
2. Poa sp.						rbaceous		Fac Up	60	
3. Setaria sp.		·	<del></del>			rbaceous	·   _	Fac Up		
4. Ambrosia trifida 5.					He	rbaceous		Fac	10	
6.						_			+	
PERCENT OF DOMINANT	Carcine was a	<sub>22</sub> Ω <b>81</b> 1	EACTAL EAC	TAZA EACTAZ	EACL on I	TAFI (myour	wo FAC V	. 70	<u></u>	
VEGETATION REMARKS:		KE OBL,	TACV, FAC	-YV+, FMCVV-,	, FAC+, OR I	AC (EXCLUE	OING FAC-);	10		
					HYDRO	DLOGY				
RECORDED DATA?			1	DESCRIBE:						
DEPTH OF SURFACE WA	TER: N/	A (in)			De	PTH TO SATU	JRATED SON	i.: >16 (in)		
DEPTH TO FREE WATER	IN PIT: Not	te (în)								
Primary Wetland Inc	DICATORS:				Sec	SECONDARY WETLAND INDICATORS:				
None							<del></del>			
Remarks:	<u>.</u>									
					So	(LS				
MAP UNIT NAME (SERIE		Hoytville			<u>-</u> _				DRAINAGE CLASS: Very	poorly drained
TAXONOMY (SUBGROUP	):		Field					OIL TYPE ENCO	UNTERED?	
<u></u>				<u>Pro</u>	FILE DE	SCRIPT	ON			
DEPTH (INCHES)	Horizo	ON		AATRIX COL IUNSELL MO			OTTLE CO		Texture, Con Structur	
no soil pit dug				no soil pit du						
no soil pit dug										
HYDRIC SOIL INDICATO	R9:			*****						
									_'\	
Remarks:										į
				WETLA	ND DE	ERMIN.	ATION			
HYDROPHYTIC VEGETAT	ION PRESENT?	No		is This Sai	MPLING POR	NT WITHIN A	WEILAND	? No		
WEILAND HYDROLOGY	Present? No	<del></del>		1		Verland?			<del>_</del>	
HYDRIC SOILS PRESENT										
NORMAL CIRCUMSTANC				Significal	NTLY DISTU	RBED: No		POTENTA	L PROBLEM AREA? No	
		N OF	WEILA				ID WET		ALITY CRITERIA	
HICH OHALITY WEEK										

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

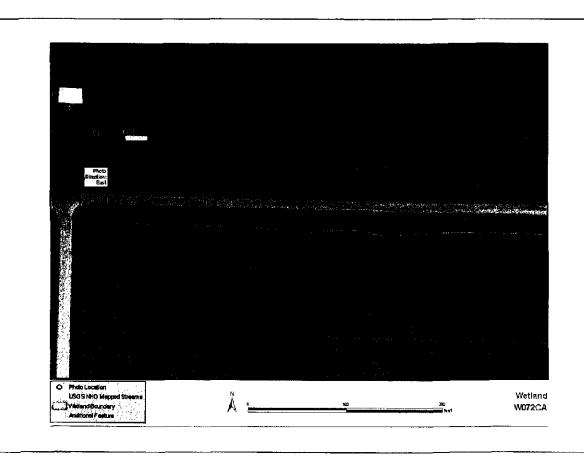
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site: ' Con	13:	Rater(s):	Date:	7, 7/69
22	Metric 1. Wetland	Area (size).		
Hasphous Els; B surr	Selections size class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20. 10 to <25 acres (4 to <10.1ha 3 to <10 acres (1.2 to <4ha) 0.3 to <3 acres (0.12 to <1.2) 0.1 to <0.3 acres (0.04 to <0.	2hs) (5 pts) a) (4 pts) (3 pts) na) (2pts)		,
3,	Metric 2 Unland	ouffers and sur	rounding land use.	
	2a. Calculate average buffer width. St WIDE. Buffers average 50m MEDIUM. Buffers average 2 NARROW. Buffers average VERY NARROW. Buffers average 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years),	elect only one and assign score. (164lt) or more around wetland; 5m to <50m (82 to <164ft) aroun 10m to <25m (32ft to <82ft) aroun rerage <10m (<32ft) around wetland; Select one or double check and older forest, prairie, savannah, w shrubland, young second growth dential, fenced pasture, park, cor	Do not double check. perimeter (7) id welland perimeter (4) und welland perimeter (1) and perimeter (0) d average. didite area, etc. (7) inforest. (5) inservation tillage, new fallow field. (3)	
9511(5	Metric 3. Hydrolog		3b. Connectivity, Score all that apply.	
may: 30 pts. subkotel	3a. Sources of water. Score as that a High pH groundwater (5) Other groundwater (3) Predpitation (1) Seasonal/intermittent surface Peremnial surface water (take) 3c. Maximum water depth. Select ont 20.7 (27.6in) (3) Q.4 to 0.7m (15.7 to 27.6in) (1) Q.4 m (<15.7m) (1) 3e. Modifications to natural hydrologic	e water (3) s or stream) (5) y one and assign score. 2)	100 year floodplain (1)  Between stream/lake and other h Part of wetland/upland (e.g. fores Part of riparian or upland corridor 3d. Duration inundation/saturation, Score Semi- to permanently inundated/s Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30	t), complex (1) (1) one or dbl check. (aturated (4)
	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances obsertible disch disch diske weir stormwater input	point source (nonstormwater) filling/grading road bed/RR track dradging other	
1 205	Metric 4. Habitat	Alteration and D	Development.	<b>3</b>
max 239 pts. stubiotal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat elleration. Score one or di	one and assign store.		-
205 autorial trie pag	None or none apparent (9) Recovering (3) Recovering (7) Recovering (7)	Check all disturbences observed	shrub/kapiling removal herbaceous/aquatic bed removal sedimentation Credging farming rutrient enrichment	Hancomorphism with the second

te: 🕴	<u> </u>	, e	Rater(s):	Date:
	7			
Salabatan dis	s page			
	·		. 41	
	IM	etric 5. Special W	etianas.	
r 10 pis. ≅ubbai	al Che	eck all that apply and score as indicated	<b>d</b> .	
		Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetland (5)		101
		Lake Erie coastal/tributary wetta		ioj
		Lake Plain Sand Prairies (Oak C		
		Relict Wet Praires (10)	Manufol (101	
		Known occurrence state/lederal	threatened or endangered s	species (10)
		Significant migratory songbird/w	<del>.</del>	
		Category 1 Wetland, See Ques	* . *	•
	· M	letric 6. Plant com	munities, inte	erspersion, microtopography
an 20 pie subic		. Welland Vegetation Communities.	Vegetation Communit	
	So	ore all present using 0 to 3 scate.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		() Aquatic bed	1	Present and either comprises small part of wetland's
		! Emergent		vegetation and is of moderate quality, or comprises a
		<b>⊘</b> Shrub		significant part but is of low quality
		Forest	2	Present and either comprises significant part of wetland's
		Open water		vegetation and is of moderate quality or comprises a small
		Open water Other	3	part and is of high quality.  Present and comprises significant part, or more, of wetland's
	er.	hadzontai (plan view) Interspersion	3	vegetation and is of high quality
		elect only one.		Vaga como i area ca la triga deservi
	-	Нigh (6)	Narrative Description	of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative of
		Mucterate (3)		disturbance tolerant native species
		Moderately low (2)	mod	h
				Native spp are dominant component of the vegetation,
		Low (1)		although nonnative and/or disturbance tolerant native app
		V None (0)		although nonnative and/or disturbance tolerant native spo can also be present, and species diversity moderate to
		None (0) Coverage of invasive plants. Refer		although nonnative and/or disturbance loterant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of pare
	to	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add	Marine Marine	although nonnative and/or disturbance tolerant native spo- can elso be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp
	to	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage	high	although nonnative and/or disturbance tolerant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spo A predominance of native species, with nonnative sop
	to	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5)	high	although nonnative and/or disturbance tolerant native spo- can also be present, and species diversity moderate to moderately high, but generallywlo presence of rare threatened or endangered spo A predominance of native species, with nonnative sop and/or disturbance tolerant native spp absent or virtually
	to	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage	high	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallywlo presence of rare threatened or endangered spp A predominance of native species, with nonnative spp
	to	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3)	high	although nonnative and/or disturbance toterant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spo A predominance of native species, with nonnative spo and/or disturbance toterant native spo absent or virtually absent, and high spo diversity and often, but not always.
	to	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	high Mudflat and Open Wa	although nonnative and/or disturbance tolerant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or antiangered spp
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-76% cover (-3) Sperse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1)		although nonnative and/or disturbance toterant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp.  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high app diversity and often, but not always, the presence of rare, threatened, or enhangered spp.  Absent <0.1ha (0.247 acres)
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. pore all precent using 0 to 3 ccole.	Mudflat and Open Wa	although nonnative and/or disturbance tolerant native app can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered app.  A predominance of native species, with nonnative app and/or disturbance tolerant native app absent or virtually absent, and high app diversity and often, but not always, the presence of rare, threatened, or enriengered app.  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 acres)
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Vegetated hummucks/tussucks	Mudifiat and Open Wa	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp.  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually obsert, and high app diversity and often, but not always, the presence of rare, threatened, or enriangered spp.  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debils >15cm (6)	Mudifiat and Open Wa 0 1 2 in) 3	although nonnative and/or disturbance tolerant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high app diversity and often, but not always, the presence of rare, threatened, or enriangered spp  ster Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 acres)
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debits >15cm (6) Standing dead > 25cm (10in) db	Mudflat and Open Wa  0  1  2  in) 3	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp.  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually obsert, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Absent <0. the (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debils >15cm (6)	Mudflat and Open Wa  0  1  2  in) 3  th  Microtopography Cov	although nonnative and/or disturbance tolerant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or enriangered spp ater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1hb (0.247 acres) High 4ha (9.38 acres) or more
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debits >15cm (6) Standing dead > 25cm (10in) db	Mudflat and Open Wa  0  1  2  in) 3  Microtopography Cov	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or enhangered spp ater Class Quality Absent <0.1hs (0.247 acres) Low 0.1 to <1hs (0.247 to 2.47 acres) High 4hs (9.88 acres) or more  ver Scale Absent
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debits >15cm (6) Standing dead > 25cm (10in) db	Mudflat and Open Wa  0 1 2 in) 3 th Microtopography Cov	although nonnative and/or disturbance tolerant native spo- can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominence of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or enhangered spp  ater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres) High 4ha (2.58 acres) or more  Absent Present very small amounts or if more common
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debits >15cm (6) Standing dead > 25cm (10in) db	Mudflat and Open Wa  0  1  2  in) 3  Microtopography Cov	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp.  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or enriangered spp.  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debits >15cm (6) Standing dead > 25cm (10in) db	Mudflat and Open Wa  0 1 2 in) 3 h Microtopography Cov 0	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominence of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or enhangered spp  ater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1hb (0.247 to 2.47 acres) High 4ha (9.58 acres) or more  Absent Present very small amounts or if more common of marginal quality
	ta ' ar	None (0) Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) Microtopography. Ore all present using 0 to 3 ccole. Vegetated hummucks/tussucks Coalise woody debits >15cm (6) Standing dead > 25cm (10in) db	Mudflat and Open Wa  0 1 2 in) 3 h Microtopography Cov 0	although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or entangered spp ater Class Quality Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres) High 4ha (9.58 acres) or more  Absent Present very small amounts or if more common of marginal quality Present in moderate amounts, but not of highest

20.5 GRAND TOTAL (max 100 pts)

Rober to the most recent CRAM Scree Chabitation Report for the sharing threehouses believed welford obligations alone before, a final formation research the chabitation of the control of





Wetland W072CA

SURVEY TYPE: Blu	e Creek W	ind Farm			WETLAND ID No.: W072CA				
							DNo: N/A		
DATE: 10/14/2009		CLIEN	IT/PROJECT NAME	: Heartlar	nd Wind LL	다/ Blue Cr	reek Wind Farm	l	
INVESTIGATORS: Hook		Stati	E/COUNTY: Ohio/	'Van Wert		Rover Fil	E RAH091014A.c	or Qu	AD NAME: Convoy
Huc 12 Cope: 04100007	0703	Town	SHIP: Union			Photo No	o.: 011		
WETLAND QUALITY: LOV	W				D TYPE: Palus :: Emergent	trine	<del>-</del>		
,	PLANT SPE	CIES		5	STRATUM	I)	DICATOR		PERCENT COVER
1. Leersia oryzoides					lerbaceous		Obligate		10 %
Scirpus atrovirens     Typha latifolia	·		<del></del>		lerbaceous lerbaceous		Obligate Ohligate	<del></del>	80 % 10 %
4,				1 -	1eroaceous	_	Obliga <u>te</u>		
5,									%
_6,				<u> </u>			,		<u>%</u>
PERCENT OF DOMINANT			, FACW+, FACW	-, FAC+, OR	FAC (EXCLUE	ing FAC-):	100		
VEGETATION REMARKS:	drainage ditch	l							
				HYDR	OLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WA	TER: N/	A (in)		D	EPTH TO SATU	RATED SOIL	: 4 (in)		
DEPTH TO FREE WATER	IN PIT: 6 (ii	rt)							
PRIMARY WETLAND INC	ICATORS:	<u></u>		Si	ECONDARY WI	TLAND INDI	CATORS:		
Saturated Upper 12in		]		F.	AC Neutral T	e <b>s</b> t			
Drainage Patterns				0	xi Root Chan	nels			
REMARKS: drainage di	tch								
				So	DILS				
Map Unit Name (Serie	s and Phase):	Hoytville silty o	lay, 0 percent slop	pes (flats)		_	De	AINAGE C	LASS: Very poorly drained
TAXONOMY (SUBGROUP	t .	I	PIELID OBSERVATIO	NS CONFIR	m Mapped Ty	PR. IF NO, SC	DIL TYPE ENCOUNT	ERED?	
			Pro	FILE D	ESCRIPT	ON			
Depth (Inches)	Horizo	ON	MATRIX CO		I	OTTLE COLUMN			fure, Concretions, Structure, eyc.
0-6	0		2.5Y 3/2			_			Silt Loam
6+	C		10YR 4/1			_7.5YR 4/6			Clay Loam
HYDRIC SOIL INDICATOR	RS:								
Listed Hyd	ric		Gleyed			_		<u></u>	
Remarks:									
			WETL	AND DE	TERMIN.	ATION			<del></del>
HYDROPHYTIC VEGETAT	ION PRESENT?	Yes			OUNT WITHIN		Yes		
WETLAND HYDROLOGY	WETLAND HYDROLOGY PRESENT? Yes IS THIS AN ISOLATED WETLAND? No								
HYDRIC SOILS PRESENT	Yes								
NORMAL CIRCUMSTANC	ES? Yes		SIGNIFICA	NTLY DIST	URBED: No		POTENTIAL P	ROBLEM A	REA? No
D	ESCRIPTIO	ON OF WEI	LAND CRO	SSING	TYPES AN	ID WEIT	LAND QUAL	ITY CR	ITERIA
HIGH QUALITY WET	LAND: no indic	ation of stress o	r disturbance in v	vetland or a	adjacent area	- diverse an	d mature vegetation	on types –	hydrologic and soil indicators

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

SURVEY TYPE: Blu	e Creek				WETLAND ID NO.: U072CA					
		-			ASSOCIATED WETLAND ID NO: WU72CA					
DATE: 10/14/2009			CLIENT/PROJECT NAI	ME: Heartland	Wind LL	C./ Blue Cree	k Wind Fa	rm		
Investigators: Hook			STATE/COUNTY: Ohi	o/Van Wert	rt Quad Name: Convoy					
Huc12 Cops: 04100007	0703		TOWNSHIP: Union			Photo No.:	)11			
WETLAND QUALITY: N/	4	_		WETLAND SUBTYPE:	Type: N/A Upland					
	PLANT SPE	CIES		S	TRATUM	IND	CATOR	PERCENT COVER		
1. Setaria faberi				He	rbaceous	U	oland	40 %		
2. Bromus inermis					rbaceous		oland	30 %		
3. Daticus carola					rbaceous		pland	10 %		
4. Solidago canadensi				Н.	rbaceous	F	ac Up	20 %		
5. 6.								**************************************		
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL,	FACW, FACW+, FAC	W-, FAC+, OR	FAC (EXCLUI	DING FAC-): U				
VEGETATION REMARKS:										
				Hydro	DLOGY					
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WAY	TER: N/	A (in)		De	PTH TO SAT	URATED SOIL: >	16 (in)			
DEPTH TO FREE WATER	IN PIT: No	ıe (in)	· · · · · · · · · · · · · · · · · · ·							
PRIMARY WETLAND IND	MCATORS:			Se	SECONDARY WETLAND INDICATORS:					
None			<del></del>							
			<del></del>							
Remarks:										
<u>-</u>				So	ILS					
MAP UNIT NAME (SERIE	s and Phase): I	loytvill	e silty clay, 0 percent s	lopes (flats)		***t		DRAINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	];		FIELD OBSERVA	TIONS CONFIRM	MAPPED T	TPE. IF NO, SOII	TYPE ENCO	UNTERED?		
		****	P	ROFILE DI	SCRIPT	ION				
DEPTH (INCHES)	Horizo	)N	MATRIX (	COLOR	N	OTTLE COLO		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-12+	A		2.5y 3	/3	<del>                                     </del>			Silty Clay Loam		
					<del>                                     </del>					
			<del>                                     </del>		<u> </u>		1			
Hydric Soil Indicator	rs:		<u> </u>							
	·····	7	<del></del>							
Remarks:		_l								
		***************************************	WET	LAND DE	TERMIN	ATION	•			
Hydrophytic Vegetat	TON PRESENT?	No		SAMPLING PO			<u> </u>			
WEILAND HYDROLOGY		. 10		An Isolated			·~			
			15 17115	THE POST LETT.	A SETTING		· .			
HYDRIC SOILS PRESENT				ICANTLY DISTU	mpor- 37-		D.	T December Anna 2 No.		
NORMAL CIRCUMSTANC						VEN TATELON		L PROBLEM AREA? No		
, L	ESCRIPTIC	IN OF	WEILAND CR	OSSING T	YPES A	AD MELLY	ND QU	ALITY CRITERIA		
			stress or disturbance i - provides suitable h					tation types – hydrologic and soil indicators often observed.		

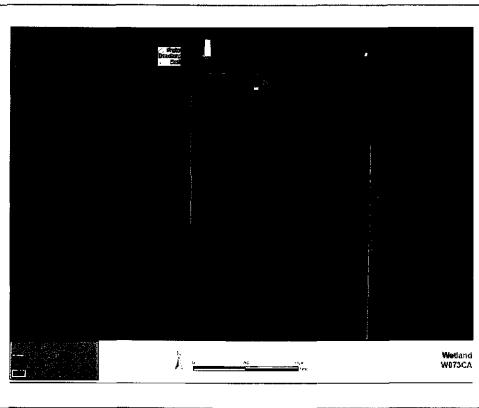
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

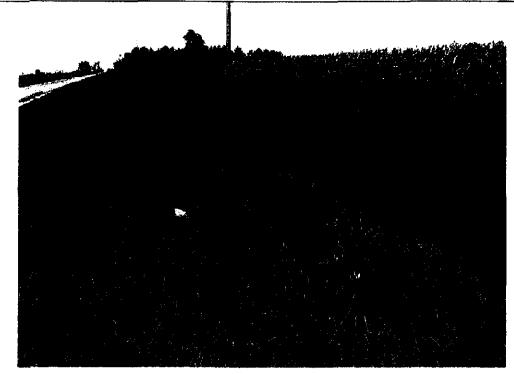
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

	ORAM v. 5	.0 Field F	orm Quar	ntitative Rating					
	Site:	Wor	14	A/WOSSAA/WOZCAF	Rater(s):	PHOK		Date: 9	7/09
)	2	2.	Metr	/ / ic 1. Wetland Ar	ea (size	).		·	
	streak 6 pile.	eubtotal	Select o	ne stze class and assign score >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20. 10 to <25 acres (4 to <10.1hc 3 to <10 acres (1.2 to <4ha) ( 0.3 to <3 acres (0.12 to <1.2h 0.1 to <0.3 acres (0.04 to <0. <0.1 acres (0.04ha) (0 pts)		l-Tacre	<u>.</u>		
		3	Metr	ic 2. Upland buf	fers and	i surroundi	ing land use.		
	nex 14 pts.	subtotal	2a, Cal	culate average buffer width. Se WIDE. Buffers average 50m MEDIUM. Buffers average 2 NARROW. Buffers average 2 VERY NARROW. Buffers average 2 VERY NARROW. Buffers average 2 VERY LOW. 2nd growth or c LOW. Old field (>10 years), MODERATELY HIGH. Resk HIGH. Urban, industrial, ope	elect only one : 1 (164ft) or moi 25m to <50m (t 10m to <25m verage <10m (: Select one or older forest, pri shrubland, you dential, fenced	and easign score. Die around wettand paid to <164ft) around (32ft to <82ft) around (32ft to <82ft) around wettan doubte check and sine, sevenneh, wilding second growth for pasture, park, conse	to not double check.  Intrimeter (7)  Wetland perimeter (4)  Id wetland perimeter (1)  Id perimeter (0)  Verage.  Ilfe area, etc. (7)  Drest. (5)  Brystion tillage, new fall	ı	
	10	13	Metr	ic 3. Hydrology.					
)	max 30 ple.	indipidua indipidua	3c. Meg	rces of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Sessonal/Intermittent surface Perennial surface water (lake droum water depth. Select only >0.7 (27.6tn) (3) 0.4 to 0.7m (15.7 to 27.6tn) (2) <0.4m (<15.7tn) (1) diffications to natural hydrologic	e water (3) e or stream) (5 y one and assi	) 3d. gn score.	Part of wettand/u Part of riparien o Duration inundation/sal Semi- to perman Begularly inundation/sal Seasonally inundation	in (1) fake and other hun pland (e.g. forest), r upland corridor (1 turation. Score one ently inundated/sai ted/saturated (3)	complex (1 i) s or dbl che turated (4)
		_	2	None or none apparent (12)   Becovered (7)   Recovering (3)   Recant or no recovery (1)	ditch tile dike weir	turbances observed ater input	point source (nor filling/grading road bed/RR tred dredging other	·	
	7	20	Met	ric 4. Habitat Alte	eration	and Develo	nment.		-
	mant 20 pts.	outhered	4a. Sut	pstrate disturbance. Score one None or none apparent (4) Becovered (3) Recovering (2) Recent or no recovery (1) olist development. Select only (2) Excellent (7) Very good (6) Good (5) Moderately good (4) Eair (3) Best to fair (2) Poor (1) olist alteration. Score one or do	or double che one and easign	ck and average.  n score.			
		20		None or none apperent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcu	iting e cutting debris removal	shrub/sapling reinterbaceous/aquising dredging farming nutrient enrichments	atic bed removal	

ORAM v. 5.0 Field F	orm Quantitative Rating			
Site: Wo 97A	A/WORSAA/WO72 CA Rater	s): 72 t	60K-	Date: 9 17/09
20 subtotal first pe		·		
- 20	Metric 5. Special Wetlan	ds.		
rego; 16 pts. subtotal	Check all that apply and score as indicated.  Bog (10)  Fen (10)  Cid growth forest (10)  Mature forested wetland (5)  Lake Erie coastal/tributary wetland-re  Lake Erie coastal/tributary wetland-re  Lake Plain Sand Prairies (Oak Openi  Relict Wet Prairies (10)  Known occurrence state/federal three  Significant migratory songbird/water  Category 1 Wetland. See Question	nrestricted hydrol estricted hydrol inge) (10) atened or enda fowl hebitat or	ogy (5) ngered species (10) usage (10)	
121	Metric 6. Plant communi	ities, int	erspersion, micro	topography.
max 20 pts. subtotal	6a. Wetland Vegetation Communities.	<b>Vegetation</b>	Community Cover Scale	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0	
	Aquatic bed	1	Present and either comprises vegetation and is of moderal	-
	Shrub		algnificant part but is of low (	
	Forest	2	Present and either comprises	
	Mucifiets			e quality or comprises a small
1	Open water		part and is of high quality	
	Other	3	Present and comprises signific	ant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion.		vegetation and is of high qua	Jily
	Select only one.			
	High (5)		ecription of Vegetation Qualit	
	Moderately high(4)	low	Low spp diversity and/or predo	
	Moderate (3)	med	disturbance tolerant native s Native sep are dominant comp	
	Moderately low (2)	FIRSU	although nonnative and/or di	
	None (0)		can also be present, and spe	
	6c. Coverage of invasive plants. Refer		moderately high, but general	<u>-</u>
	to Table 1 ORAM long form for list. Add		threatened or endangered sp	
	or deduct points for coverage	high	A predominance of native spec	
	Extensive >75% cover (-5)		and/or disturbance tolerant n	ative spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversit	y and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threate	ned, or endangered app
	Nearly absent <5% cover (0)			
	Absent (1)		Open Water Class Quality	
	6d. Microtopography.		Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	
	Vegetated hummucks/tuesucks Coarse woody debris >15cm (6in)	<del>2</del> 3	Moderate 1 to <4ha (2.47 to 9 High 4ha (9.88 acres) or more	
	Standing dead >25cm (10in) dbh		TRIOT(4)(8. (2.00 scres) Of ITIOIS	·
	Amphiblan breeding pools	Microtonog	mphy Cover Scale	
		0	Absent	
		- 1	Present very small amounts or	if more common
		•	of merginal quality	
	•	2	Present in moderate amounts,	but not of highest
		-	quality or in small amounts o	
		3	Present in moderate or greater	
			and of highest quality	
2/GRAN	ID TOTAL (max 100 pts)			

Refer to the most recent ORAM Score Cellbration Report for the scoring brestipoints between wetlend categories at the following address: http://www.epe.siste.cls.un/dess/401.jpmi last revised 1 February 2001 jjm





Wetland W073CA



SURVEY TYPE: Blue	Creek Wi	nd Farm			WETLAND ID No.: W073CA				
		1					AM ID NO: N/A		
DATE: 10/14/2009		Cri	ENT/PROJECT NAME:	Hear	tland Wind LL	C./ Blu	e Creek Wind Far	m	
INVESTIGATORS: Hook		STA	TE/COUNTY: Ohio/F	auldii	ng	ROVER FILE: RAH091014A.cor QUAD			QUAD NAME: Payne
Huc 12 Code: 0410000710	003	To	vnship: Blue Creek			Рното	No.: 002		
WETLAND QUALITY: Low					LAND TYPE: Palus TYPE: Emergent	strine			
	PLANT SPE	CTES			STRATUM		INDICATOR		PERCENT COVER
1. Leersia oryzoides					Herbaceous		Obligate		20 % 80 %
Scirpus atrovirens     3.			Herbaceous		Obligate				
4.									%
5. 6.									<u>%</u>
PERCENT OF DOMINANT S	PECTES THAT AS	EORI FAC	W FACW+ FACW-	EAC4	OP EAC (PVC) III	DING EA	C-): 100		, <b>e</b>
VEGETATION REMARKS: 0		E ODL, FAC	II, EMENT, PACES,	JALLT	, OR PAR (EXCLUI	DANG FA	C-j. 100		
, adding to a second									
				HY	DROLOGY				
RECORDED DATA?			Describe:						
DEPTH OF SURFACE WATE	:R: 2 (in	)			DEPTH TO SATI	URATED S	301L: 0 (in)		
DEPTH TO FREE WATER IN	Pir: 0 (in	)							
PRIMARY WETLAND INDIC	CATORS:				SECONDARY W	ETLAND	INDICATORS:		
Saturated Upper 12in		····					· <u>·</u>	<u> </u>	
Inundated									
REMARKS: drainage dite	h								(
					Soils				
Map Unit Name (Series	and Phase): I	loytville silty	clay, 0 percent slope	es (flat	3)		I	DRAINA	GECLASS: Very poorly drained
TAXONOMY (SUBGROUP):			FIELD OBSERVATION	vs Cor	NFIRM MAPPED T	YPE IF N	o, Soil Type Encou	NTEREL	)?
			Pro	FILE	DESCRIPT	ION			
DEPTH (INCHES)	Horizo	N	MATRIX COL (MUNSELL MO				COLOR L MOIST)	TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-6	0		2.5Y3/1			7.5YR	4/4		Silt Loam
6+	С		10YR 4/4						Clay Loam
HYDRIC SOIL INDICATORS	):		·						
Listed Hydri	c	<u></u>							
REMARKS: Deep excavati	on into substra	tum. Domin	ance by OBL species.	•					
			WETLA	ND	DETERMIN	ATIO	И		
HYDROPHYTIC VEGETATION PRESENT? Yes IS THIS SAMPLING POINT WITHIN A WETLAND? Yes									
WETLAND HYDROLOGY PRESENT? YES IS THIS AN ISOLATED WETLAND? No									
HYDRIC SOILS PRESENT?	Yeş						<del></del>		
NORMAL CIRCUMSTANCE		<u> </u>			DISTURBED: No				em Area? No
Dr	DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITERIA								
are characteristic of the sp MODERATE QUALITY	ecific commun WETLAND: m	ity type – pr ild to moder	ovides suitable habit ate disturbances hav	at for a	wildlife – high qu ed alterations in	iality per immedia	rennial streams are d itely adjacent areas	often oi slight	pes - hydrologic and soil indicators bserved. ly altered natural vegetation, treams are of relatively good quality

and aren't significantly disturbed.

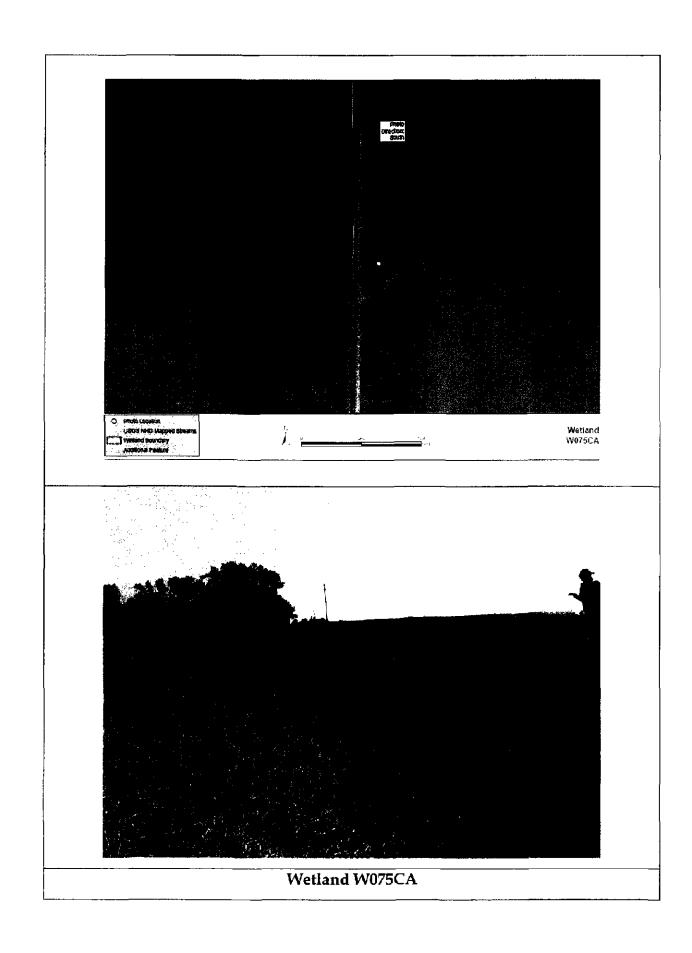
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

<del></del>	Form Quantitative Rating			
Site:	013 CA	Rater(s):	2 Hook	Date: 10 14 0
22	Metric 1. Wetlan		· ).	
mex 6 pts. subtotal	Select one size class and assignment   >50 sores (>20.2hs)   25 to <50 scres (4 to   3 to <10 scres (4.2 to   0.3 to <3 scres (0.1 to <0.3 acres (0.1 column)   <0.1 to <0.3 acres (0.04ha)   <0.1 acres (0.04ha)   <0.1 acres (0.04ha)	(6 pts) 1 to <20.2ha) (5 pts) 1 <10.1ha) (4 pts) 2 <4ha) (3 pts) 1 to <1.2ha) (2pts) 2 4to <0.12ha) (1 pt)	h3 aere	
13			surrounding land (	JSO.
max 14 pis. subtotei	2a. Calculate average buffer wilder. Buffers average MEDIUM. Buffers average MARROW. Buffers average WERY NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd graph LOW. Old field (>10 MODERATELY HIGH	idth. Select only one a age 50m (154ft) or mon verage 25m to <50m (8 average 10m to <25m ( uffera average <10m (< nd use. Select one or owth or older forest, pro years), shrubland, you H. Residential, fenced	nd assign score. Do not double che e ground wetland perimeter (7) 2 to <164ft) around wetland perimete (32ft to <82ft) around wetland perimeter (0)	ock. er (4) eter (1)
10 13	Metric 3. Hydrol	ogy.		
mec 90 plus. subtotal	High pH groundwater (1)  Precipitation (1)  Seasonel/Intermitten Perennial surface was  3c. Maximum water depth. Se  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 1)  4. 40.4m (<15.7in) (1)  3e. Modifications to natural hy	r (5) 3) It surface water (3) Iter (lake or streem) (5) Iter (lake or streem) (5) Iter (lake or streem) (5) Iter (1) Iter (1) Ite	Between s Part of we Part of rips 3d. Duration inundet Semi- to p Regularly Seasonally cone or double check and average.	core all that apply. loodplain (1) stream/lake and other human use tland/upland (e.g. forest), complex arian or upland comidor (1) ion/saturation. Score one or diblio lermanently inundated/saturated (- inundated/saturated (3) y inundated (2) y saturated in upper 30cm (12in) (
	Recovering (3) Recent or no recover	welr		
7 20	Metric 4. Habita	t Alteration a	and Development.	
mess 20 pte. sublote		ore one or double checent (4)  . ry (1) sect only one and assign	k and everege.	
	None or none appendance (6)  Recovering (3)  Recent or no recover	Check all distance mowing grazing of clearcut	urbances observed shrub/eapi herbaceou	ling removel ustaquatic bed removat tion
20	1000	selective woody defends po	ebris removal farming	wichment

Site:	1.4	107	3 CA	Rater(s	): <del>(2</del>	Hook	Date: 10 14 /0;
	20						
	20	Metr	ic 5. Spec	ial Wetland	is.		
mex 10 pts.	aubiotel		that apply and sco		,		
			Bog (10) Fen (10) Cld growth forest of the growth forest of the coastal/ Lake Erie coastal/ Lake Plain Sand Fratict Wat Prairies Known occurrence Significant migrate	(10) etland (5) iributary wetland-un iributary wetland-re- rairies (Oak Openir a (10) e state/federal three- ory songbird/water fe	stricted hydro igs) (10) tened or end iwil hebitat or	angered species (10)	
		, L	Category 1 Wetter	nd, See Question 1	Qualitative R	lating (-10)	
12	122	l Made	is & Dland	i	lae int	arenamian w	laratanagranhu
	100		and Vegetation Co		=	Community Cover Scale	icrotopography.
жих 20 різ.	aubiotal		present using 0 to		Agrangion		0.1ha (0,2471 acres) configuous area
			Aquetic bed	• • • • • • • • • • • • • • • • • • • •	1		prises small part of wetland's
		<u> </u>	Emergent				noderate quality, or comprises a
		<u> </u>	Shrub Forest		2	significant pert but is	of low quality prises significant part of wetland's
			Mudflets			vegetation and is of a	noderate quality or comprises a small
			Open water			part and is of high qu	
		6h horiz	Otheri contal (plan view) in	tereneralen	3	Vegetation and is of h	significant part, or more, of wetland's
		Select or		acispo stolii		7 10200000 TO 110 10 10 10 10	and decord
			High (5)		Neurative D	escription of Venetation	
			Moderately high(4	}	low		r predominance of nonnative or
			Moderate (3)  Moderately low (2)	١	mod	Mathe engare dominar	native species  Intromponent of the vegetation,
		-	Low (1)	,	HIPOLI	1	nd/or disturbance tolerant native spp
		7	None (0)				and species diversity moderate to
			erage of invasive pl				generally w/o presence of rare
			1 ORAM long form			threatened or endeng	
		Or delouc	t points for coverag Extensive >75% o		high	I -	ive species, with normative spp lerant native spp absent or virtually
			Moderate 25-75%				diversity and often, but not always.
-			Sparse 5-25% co			the presence of rare,	threatened, or endangered spp
			Mearly absent <59	% cover (0)	*****		
		Sel Micr	Absent (1) otopography.		O STREET	d Open Water Class Qua   Absent <0.1ha (0.247	
			present using 0 to	3 scale.	1	Low 0.1 to <1ha (0.247	
			Vegetated hummi		2	Moderate 1 to <4ha (2	
			Coarse woody de	· · ·	3	High 4ha (9,88 acres) o	OK LUNOLE
•		<u> </u>	Standing dead >2 Amphibian breedi	· -	1410		
		<u> </u>	Visita worten interera	ing bodie	0	raphy Cover Scale Absent	
					1	Present very small amo	cunts or if more common
	•					of marginal quality  Present in moderate an	nounts, but not of highest
							iounts of highest quality
					3	Present in moderate or	

27 GRAND TOTAL (max 100 pts)

and of highest quality





				ASSOCIATED STREAM ID NO: N/A								
DATE 09/17/2009 CLIE			CLIENT/PROJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm									
INVESTIGATORS: D.West, M. Nechvatal STA			STATE/COUNTY: Ohio/Paulding			ROVER FILE: R091709ADW.cor Qua			QUAD NAME: Payne			
Huc12 Code: 041000071003 Township: Blue				k Рното No.: 075С55W			075C55W & 0	75C56E	3			
WETLAND QUALITY: Lot	×				D TYPE: Palus Emergent	trine						
PLANT SPECIES					STRATUM INDICATOR		ICATOR		PERCENT COVER			
1. Scirpus atrovirens			Herbaceous Obligate Herbaceous Obligate				10 %					
Typha latifolia     Carex sp.			<del></del>		erbaceous erbaceous		ic Wet					
4. Typha angustifolia					erbaceous		bligate		20 %			
5.									<u>%</u>			
6.	Enneuro tra	ODI E	CASSII DAST	F46:	TACIO		<u> </u>		<u>%</u>			
PERCENT OF DOMINANT						ING FAC-): 10	IU					
VEGETATION REMARKS:	roadside ditch; lin	ear wetland,	drainage for adj a	ng field to S	i				ě			
				HYDR	OLOGY							
RECORDED DATA?			DESCRIBE:									
DEPTH OF SURFACE WAT	TER: N/A (i	n)		D	EPTH TO SATU	RATED SOIL:	0 (in)					
	IN Prr: 0 (in)			[								
DEPTH TO FREE WATER		PRIMARY WETLAND INDICATORS:					SECONDARY WETLAND INDICATORS:					
<del></del>				SE	CONDARY WI	ETLAND INDIC.	ATORS:					
<del></del>				~ — —	CONDARY WI		ATORS:					
PRIMARY WETLAND IND	OICATORS:	drainage for	r adj ag field to S	Lo		ey	ATORS:					
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di	DICATORS:			Lo FA	cal Soil Surv	ey						
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in	DICATORS:			Lo FA	ocal Soil Surve AC Neutral Te	ey		DRAINA	.GE CLASS: Very poorly drained			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di	tch; linear wetland,	yt <b>ville</b> silty cl		SO es (flats)	ocal Soil Surve	est	I					
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE	tch; linear wetland,	yt <b>ville</b> silty cl	lay, 0 percent slop DELD OBSERVATION	SC es (flats)	ocal Soil Surve	est est PE. If No, Son	I					
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE	tch; linear wetland,	yt <b>ville</b> silty cl	lay, 0 percent slop DELD OBSERVATION	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI	est est PE. If No, Son	I TYPE ENCOUR	NTERED				
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)	tch; linear wetland,	yt <b>ville</b> silty cl	lay, 0 percent slop DELD OBSERVATION PRO MATRIX COL	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI	est PE. If No, Son	I TYPE ENCOUR	NTERED	? Texture, Concretions,			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP) DEPTH (INCHES)	tch; linear wetland, s AND PHASE): Hoy	yt <b>ville</b> silty cl	lay, 0 percent slop  DELD OBSERVATION  PRO  MATRIX COL  (MUNSELL MO	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP) DEPTH (INCHES)  0-2 2-12+	tch; linear wetland, s AND PHASE): Hoy HORIZON A B	yt <b>ville</b> silty cl	lay, 0 percent slop TELD OBSERVATION PRO MATRIX COL (MUNSELL MO 10YR 5/1	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON ON OTTLE COLOUNSELL MOD 2% 10YR 4/6	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+ HYDRIC SOIL INDICATOR	tch; linear wetland, s AND PHASE): Hoy HORIZON A B	yt <b>ville</b> silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON ON OTTLE COLOUNSELL MOD 2% 10YR 4/6	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+  HYDRIC SOIL INDICATOR Listed Hyd	tch; linear wetland, s AND PHASE): Hoy HORIZON A B	yt <b>ville</b> silty cl	lay, 0 percent slop TELD OBSERVATION PRO MATRIX COL (MUNSELL MO 10YR 5/1	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON ON OTTLE COLOUNSELL MOD 2% 10YR 4/6	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+ HYDRIC SOIL INDICATOR	tch; linear wetland, s AND PHASE): Hoy HORIZON A B	yt <b>ville</b> silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1	SO es (flats) NS CONFIRM DFILE D	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON ON OTTLE COLOUNSELL MOD 2% 10YR 4/6	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+  HYDRIC SOIL INDICATOR Listed Hyd	tch; linear wetland, s AND PHASE): Hoy HORIZON A B	yt <b>ville</b> silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1 Gleyed	SO es (flats) NS CONFIRE DFILE D OR DIST)	CAL Soil Survey AC Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	est  PE. IF NO, SOR  ON  LOTTLE COLC  UNSELL MO  2% 10YR 4/6	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+  HYDRIC SOIL INDICATOR Listed Hyd REMARKS:	tch; linear wetland, s AND PHASE): Hoy HORIZON A B RS:	ytville silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1 Gleyed	SO es (flats) NS CONFIRM DFILE D AND DE	CAL Soil Survey AC Neutral To  PILS M MAPPED TY  ESCRIPTI  M  (M	est  PE. IF NO, SOR  ON  LOTTLE COLC  UNSELL MO  2% 10YR 4/6	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+  HYDRIC SOIL INDICATOR Listed Hyd REMARKS:	HORIZON  A  B  RS:  ric  TION PRESENT? Yes	ytville silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1 Gleyed  WETLA Is This SA	SO es (flats) NS CONFIRE DI LOR DIST)  AND DE	CAL Soil Survey AC Neutral To  PILS M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON  CON  CON  CON  CON  CON  CON  CON	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+ HYDRIC SOIL INDICATOR Listed Hyd REMARKS: HYDROPHYTIC VEGETAT WETLAND HYDROLOGY	HORIZON  A  B  RS:  RICON PRESENT? YES  PRESENT? YES	ytville silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1 Gleyed  WETLA Is This SA	SO es (flats) NS CONFIRE DI LOR DIST)  AND DE	C Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON  CON  CON  CON  CON  CON  CON  CON	TYPE ENCOUR DR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			
PRIMARY WETLAND IND Drainage Patterns Saturated Upper 12in REMARKS: roadside di MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-2 2-12+ HYDRIC SOIL INDICATOR Listed Hyd	HORIZON  A  B  RS: ric  TION PRESENT? Yes PRESENT? Yes	ytville silty cl	PRO MATRIX COL (MUNSELL MO 10YR 5/1 10YR 5/1 Gleyed  WETLA IS THIS SA	SCO SCO SCORES (Flats) NS CONFIRM DFILE D OR DIST)  AND DE	C Neutral To  PILS  M MAPPED TY  ESCRIPTI  M  (M	PE. IF NO, SON  CON  CON  CON  CON  CON  CON  CON	I. TYPE ENCOUR OR ST)	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silty Clay Loam			

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vege hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality

and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

SURVEY TYPE: Blue Creek  Date: 09/17/2009 Client/Project Name: Heartlan					WETLAND ID NO.: U075CA ASSOCIATED WETLAND ID NO: W075CA					
										DATE: 09/17/2009
INVESTIGATORS: D.West, M. Nechvatal STATE/COUNTY: Ohio/					uiding QUAD NAME: F			Раупе		
Huc 12 Code: 041000071003 Township: Blue Cree					PHOTO No.: 075C57E					
WETLAND QUALITY: N/	A		:.		AND TYPE: N/A PE: Upland					
	PLANT SPI	CIES			STRATUM		INDICATOR		PERCENT COVER	
1. Trifolium pratense					Herbaceous		Fac Up -		10 %	
2. Foa sp. 3. Seteria sp.	<del></del>			<del> </del>	Herbaceous		Fac Up			
4.				<del> </del>	Herbaceous		Fac Up	+	20 % %	
5.									%	
6.				_					%	
PERCENT OF DOMINANT	SPECIES THAT	REOBL, FACW,	FACW+, FACW-	,FAC+,0	OR FAC (EXCLUI	DING FA	.C-): 0			
VEGETATION REMARKS:										
	. =			HYD	ROLOGY					
RECORDED DATA?			DESCRIBE							
DEPTH OF SURFACE WAT	ter: N/	A (in)			DEPTH TO SATU	URATED	SOIL: >16 (in)			
DEFTH TO FREE WATER	IN PIT: No	ne (in)								
PRIMARY WEILAND INC	ICATORS:				SECONDARY WETLAND INDICATORS:					
None										
				<u>.                                    </u>	· · · · · · · · · · · · · · · · · · ·		· · · · · · · · · · · · · · · · · · ·			
Remarks:										
				S	Soils					
MAP UNIT NAME (SERIE	s and Phase):	Hoytville silty cl	ay, 0 percent slop	pes (flats)				Drain	AGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP	):	F					IO, SOIL TYPE ENCO	DUNTEREI	<b>3</b> ?	
			PRO	OFILE I	DESCRIPT	ION			•	
DEPTH (INCHES)	Horizi	ON	MATRIX COI (MUNSELL MO				COLOR L MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
rio soil pit dug			no soil pit d	ug						
no soil pit dug										
Hydric Soil Indicator	R <b>5</b> ;									
								- 1	·	
Remarks:										
	<del>'</del>		WETLA	AND D	ETERMIN.	ATIO	N			
					NG POINT WITHIN A WETLAND? No					
				N ISOLATI	ED WETLAND?	N/A				
Hydric Soils Present	No									
Normal Circumstance	ES? Yes		SIGNIFICA	NTLY DIS	TURBED: No		POTENTI	al Probi	LEM AREA? No	
D	ESCRIPTION	ON OF WET	LAND CRO	SSING	TYPES AN	ND W	ETLAND QU	JALITY	CRITERIA	
		<del></del>								
THE STANDING WILL	ישיאהי עס זעסונ	AUDITOL STIESS OF	costurpance in w	venano o	i aujacent area	- uivers	e anu manue vegi	erauon ty	pes - hydrologic and soil indicators	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

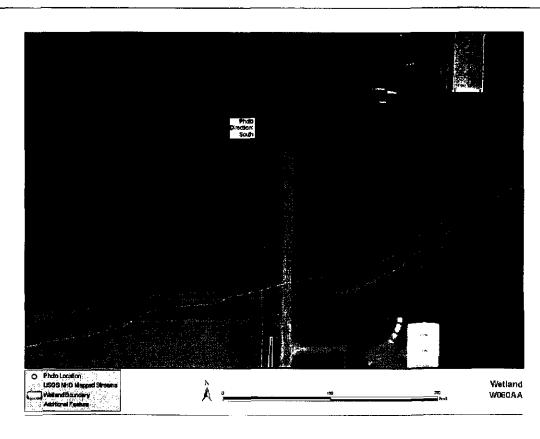
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

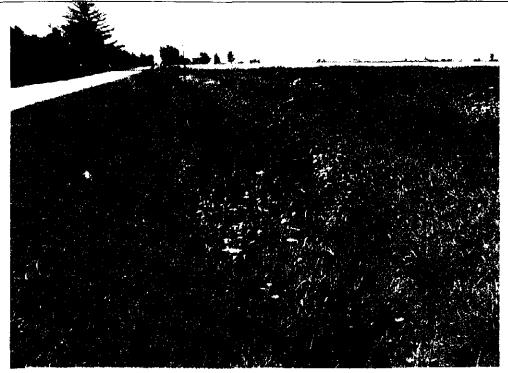
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site: W	075CA	Rater(s): Matthew Nechvatal	Date: 09/17/09
0	0	  Metric 1. Wetland Area (size).	
max 6 pts	sublotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	
1	1	Metric 2. Upland buffers and surrounding land	use.
snex 14 pts.	suptotal	2a. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)  NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)  VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, sevanneh, wildlife area, etc. (7)  LOW. Old field (>10 years), shrubland, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field.  HIGH. Urban, industrial, open pasture, row gropping, mining, construction. (1)	ld. (3)
11	12	Metric 3. Hydrology.	
men 30 pts	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or streem) (5) 3d. Duration inundation/sature (5) 3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)  <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12) Recovered (7) Recovered (7) Recovering (3) Recent or no recovery (1)  3b. Connectivity. Score all that 100 year floodplain (1) Between stream/lake Part of reparal/lake Part of wetland/uplan Part of riparian or upl	t) and other human use (1) and (e.g. forest), complex (1) land corridor (1) atlon, Score one or dbl check, y inundated/saturated (4) saturated (3) d (2) lin upper 30cm (12in) (1)
9	21	Metric 4. Habitat Alteration and Development.	
mex 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) Recovering (2) Resent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6)  Check all disturbances observed shrub/sapling remove	
	21	Recovering (3) grazing herbaceous/aquatic to clearcutting sedimentation dredging woody debris removal toxic pollutants nutrient enrichment	

íte:		R	ater(s):		Date:
	1				
	subtotal this pay	ge.			
0	0	<b>.</b>			
	]	JMetric 5. Special We	tlands.		
10 pis.	subtotal	Check all that apply and score as indicated.			
		Bog (10)			
		Fen (10) Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland	-unrestricted hydrology (1	0)	
		Lake Erie coastal/tributary wetland		<b>-</b> ,	
		Lake Plain Sand Prairies (Oak Ope	enings) (10)		
		Relict Wet Preires (10)			
		Known occurrence state/federal the	_	• •	
		Significant migratory songbird/water		•	
		Category 1 Wetland. See Question	n 1 Qualitative Rating (-10	D)	
1	1	Metric 6. Plant comn	aunitiaa int	reneraion mier	otonogranhu
				· · · · · · · · · · · · · · · · · · ·	otopograpny
20 pts.	subtotal	6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation Communit		479 AARAN AARANANA AARA
		Aquatic bed	0 1	Absent or comprises <0.1ha (0.2) Present and either comprises sm	
		2 Emergent	•	vegetation and is of moderate (	•
		Shrub		significant part but is of low qua	
		Forest	2	Present and either comprises sig	
		Mudflats		vegetation and is of moderate	quality or comprises a small
		Open water		part and is of high quality	
		Other	3	Present and comprises significan	
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	<i>'</i>
		Select only one. High (5)	Nametive Description	of Magnestics Quality	
		Moderately high(4)	low	Low spp diversity and/or predom	inance of nonnative or
		Moderate (3)	<b></b>	disturbance tolerant native spe	
		Moderately low (2)	mod	Native spp are dominant compor	
		Low (1)	•	although nonnative and/or distu	urbance tolerant native spp
		None (0)		can also be present, and speci	es diversily moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generally	w/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered app	
		or deduct points for coverage  Extensive >75% cover (-5)	high	A predominance of native specie and/or disturbance tolerant nati	
		Moderate 25-75% cover (-3)		absent, and high spp diversity	
		Sparse 5-25% cover (-1)		the presence of rare, threatene	• • •
		Nearly absent <5% cover (0)			
		Absent (1)	Mudflat and Open War	ter Class Quality	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	
		Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.8)	3 acres)
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more	
		Amphibian breeding pools	Microtopography Cov	er Scale	
		Landen in the desired browns	0	Absent	
			1	Present very small amounts or if	more common
				1	
				of marginal quality	<u>.</u>
			2	Present in moderate amounts, bu	<del>-</del>
				Present in moderate amounts, but quality or in small amounts of h	ighest quality
			2	Present in moderate amounts, bu	ighest quality

GRAND TOTAL(max 100 pts)





Wetland W080AA

<del></del>									
SURVEY TYPE: Blu	e Creek W	ind Farm			WETLAND ID NO.: W080AA ASSOCIATED STREAM ID NO: S080AA				
DATE: 09/18/2009		CTIENT	PROJECT NAME: He	artland	1				
DATE: 03/10/2007		CLIENT	TROJECT NAME. 110	ai uaile	S AATMON INTO	C., D.O	ie Creek William	ariic	
Investigators: Hook		STATE/	COUNTY: Ohio/Van	Wert		Rove	R File: RAH09180	9A.cor	QUAD NAME: Convoy
HUC 12 CODE: 04100007	0703	Towns	ни: Union		Рното No.:				
WETLAND QUALITY: LOV	N .	····			AND TYPE Palustrine PE: Emergent				,
	PLANT SPE	CIES		ST	TRATUM		INDICATOR	Ī	PERCENT COVER
1. Leersia oryzoides				He	rbaceous		Obligate		80 %
2. Scirpus cyperinus				He	rbaceous		Obligate		10 %
3		·						↓—	<u> </u>
<b>4.</b> 5.	\\								<u>%</u>
6.						<del>-  </del>	<u> </u>	+-	
	£2000000000000000000000000000000000000	an CORL EA CHALL	ACTIVI PACTIVI EA	C			a		
PERCENT OF DOMINANT			ACW+, FACW-, FA	C+, OR I	AC (EXCLUE	DING FA	.C-); 100	_	
VEGETATION REMARKS:	roadside ditch								
			H	YDRO	DLOGY				
RECORDED DATA?			Describe:						
DEPTH OF SURFACE WATER: N/A (in)				De	PTH TO SATU	JRATED	Son: >16 (in)		
DEPTH TO FREE WATER IN PTT: D (in)									
Primary Wetland Indicators;				Sec	ONDARY WI	ETLAND	INDICATORS:		
Water Marks				FA	C Neutral To	est			
Drainage Patterns				Oxi	i Root Chan	nels			
REMARKS: roadside die	tch				-				
				SO	ILS				
Map Unit Name (Serie	s and Phase):	Hoytville silty cla	y, 0 percent slopes (f	flats)				DRAIN	AGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	):	Fig	LD OBSERVATIONS C	CONFIRM	MAPPED TY	TE. IF N	o, Soil Type Enco	UNTERE	o?
			Profil	LE DE	SCRIPTI	ION			
DEPTH (INCHES)	Horizo	N N	MATRIX COLOR (MUNSELL MOIST		MOTTLE COLOR (MUNSELL MOIST)			Texture, Concretions, Structure, etc.	
0-4	A		2.5Y 4/2		Oxid	lized Ri	nizospheres		Silt Loam
4-12+	В		10YR 5/1			5YR 5/			Silty Clay Loam
			2011.0/1			011037	0.00		Villey Cody Edition
HYDRIC SOIL INDICATOR	RS:			7.7	<del>!</del>		<u> </u>		
Listed Hyd	ric		Gleyed						· · · · · · · · · · · · · · · · · · ·
Remarks:	***		<del>_</del>						
			_						
			WETLANI	D <b>D</b> E1	TERMIN.	ATIO	N		
HYDROPHYTIC VEGETAT	ION PRESENT?	Yes	IS THIS SAMPL	ING POU	NT WITHIN A	A WETLA	ND? Yes		
WETLAND HYDROLOGY	PRESENT? Yes		Is This An Iso	DLATED V	WETLAND? I	No			
HYDRIC SOILS PRESENT	Yes								
NORMAL CIRCUMSTANC	Es? Yes		SIGNIFICANTI	y Distui	RBED: No		POTENTI	AL PROBI	EM AREA? No
D	ESCRIPTIO	ON OF WETI	AND CROSSI	NG T	YPES AN	ND W	etland Qu	ALITY	CRITERIA
HIGH QUALITY WETE	AND: no indic	ation of stress or	disturbance in wetla	nd or ad	ljacent area -	– divers	e and mature veg	etation ty	pes - hydrologic and soil indicators
						_			-

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality

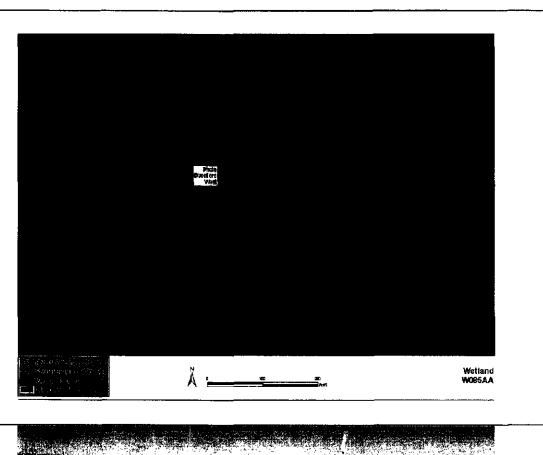
and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or solts - grazing from livestock - charnelization of stream courses or disching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Fleid Form	Quantitative Rating	<u> </u>		·
Site: WOS	) AA	Rater(s): R Had	» K	Date: 9/19/09
	letric 1. Wetland A	•		
sees of ples. subtrated Se	>50 acres (>20.2ha) (6 pts) >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4hs) 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to < <1.1 acres (0.04ha) (0 pts)	i) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 2ha) (2pts) <0.12ha) (1 pt)	0.25acre	
max 14 pts. subtotel 2a.	Letric 2. Upland but Calculate average buffer width.  WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average NARROW. Buffers severage VERY NARROW. Buffers intentity of surrounding land use VERY LOW. 2nd growth CLOW. Old field (>10 years MODERATELY HIGH. Re	Iffers and surroll Select only one and assign ad 0m (164ft) or more around wat a 25m to <50m (82 to <164ft) a ge 10m to <25m (32ft to <82ft average <10m (<32ft) around	core. Do not double check. tiand perimeter (7) around wetland perimeter (4) t) sround wetland perimeter (1) t wetland perimeter (0) k and average. ah, wildlife area, etc. (7) rowth forest. (5) k, conservation tillage, new fai	()
10 12 M	letric 3. Hydrology	٧.		
<b>3c</b>	High pH groundwater (5) Other groundwater (3) Frecipitation (1) Seasonel/Intermittent surfice water (6) Maximum water depth. Select of 20,7 (27.6tn) (3) 0.4 to 0.7m (15.7 to 27.6tn) 40.4m (<15.7ln) (1)	ace water (3) ake or streem) (5) only one and aseign score.	Part of wetland/ Part of riparian in a street of ripar	tain (1)  n/lake and other human use (1)  nupland (e.g. forest), complex (1)  or upland corridor (1)  aturation. Score one or dol check  nently inundated/saturated (4)  lated/saturated (3)
38	None or none apparent (12 Recovered (7) Recovering (3) Recant or no recovery (1)			·
mant 20 pte. subtohel 49	Metric 4. Habitat A  Substrate disturbance. Score of None or none apparent (4) Becovering (2) Recent or no recovery (1) Habitat development. Select on Excellent (7) Very good (8) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or	ne or double check and avera ) nly one and assign score.	•	
<u> 19</u>	None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)	Check all disturbances of mowing grazing	shrub/septing re herbaceous/aqu sedimentation of dredging	ustic bed removal

Site:	W080 AA	Rater(s); R	boh	Date: 9/18/09
[ 	19 Metric 5. Spec	lai Wetlands		
max 10 pts.	subtotal Check all that apply and soon	4		
	Bog (10) Fen (10) Old growth forest ( Mature forested we  Lake Erie coastal/ Lake Erie coastal/ Lake Plain Sand P Relict Wet Prairies  Known occurrence  Significant migrato	10) atland (5) ributary wetland-unrestricted hy ributary watland-restricted hydr rairies (Oak Openinge) (10)	ology (5) langered species (10) ir usage (10)	
0		communities, in	-	crotopography.
mex 20 pas.	subtotal 6a. Wetland Vegetation Con Score all present using 0 to 3		Community Cover Scale Absent or comprises <0.1	ha (0.2471 acres) contiguous area
	Aquatic bed Emergent	1	Present and either compr	ises small part of wetland's derate quality, or comprises a
	Shrub		significant part but is of	
	Forest	2	Present and either compr	ises significant part of wetland's
	Mudflats			derate quality or comprises a small
	Open water		part and is of high qual	
	Other (Other	terspersion.	vegetation and is of hig	gnificant part, or more, of wetland's h quality
	Select only one.	`		
	High (5)		Pescription of Vegetation Q	
	Moderately high(4)  Moderate (3)	low	disturbance tolerant nat	predominance of nonnative or
	Moderately low (2)	mod		component of the vegetation,
	Lpw (1)		==	or disturbance tolerant native spp
	None (0)		E -	d species diversity moderate to
	6c. Coverage of Invasive pla			nerally w/o presence of rare
	to Table 1-ORAM long form (		threatened or endanger	
	or deduct points for coverage Extensive >75% or			species, with nonnative app ant native app absent or virtually
	Moderate 25-75%		1	wirthity and often, but not always,
	Sparse 5-25% cov	<u> </u>		reatened, or endangered spp
	Nearty absent <5%			
	Absent (1)		d Open Water Class Qualit	
	6d. Microtopography.  Score all present using 0 to 9	0 3 scale. 1	Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 to	
	Vegetated hummu		Moderate 1 to <4ha (2.47	
	Coarse woody deb		High 4ha (9.88 acres) or r	
	Standing dead >25		-	
	Amphiblan breedir	ng pools <u>Microtope</u>	graphy Cover Scale	
		0	Absent	
		1	Present very small amount of marginal quality	RS OF IT MORE COMMON
		<del></del>	Present in moderate anno	unis, but not of highest
		4	quality or in small amou	
	· ·		I Andrea A to the street de la con-	IN OI HAIRDY ARBITA
		3	Present in moderate or gr	

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epa.state.ch.us/dsw/401/461.html





Wetland W085AA

	ie Creek Wii	ia rarm			WETLAND ID NO.: W085AA ASSOCIATED STREAM ID NO: N/A				
DATE: 09/18/2009		CLIENT	PROJECT NAME: H	leartland	d Wind LL	C./ Blue	Creek Wind Fa	arm	
Investigators: Hook		STATE/	COUNTY: Ohio/Va	n Wert	ert ROVER FILE: RAH0918			9A.cor	QUAD NAME Scott
Huc 12 Cobe: 0410000	/0703	Towns	BHIP: Union			Риото	No.:		
WETLAND QUALITY: Lo	W	<u>-                                  </u>			TYPE: Palus Emergent	trine			
	PLANT SPEC	IES		Sı	TRATUM		INDICATOR	T	PERCENT COVER
1. Echinochloa murica	a			He	erbaceous		Fac Wet +		30 %
Typha latifolia     Leersia oryzoides					erbaceous		Obligate	<b>∔</b>	10 %
<ol> <li>Leersia oryzoides</li> <li>Alisma subcordatun</li> </ol>	- <del></del>				erbaceous erbaceous		Obligate Obligate	+	40 % 10 %
5.					-1 Daccous		ОМЕДИЦ	<b>.</b>	%
6					•				%
PERCENT OF DOMINANT	SPECIES THAT AR	OBL, FACW, I	FACW+, FACW-, F	AC+, or I	FAC (EXCLUI	DING FAC	-): 100		
VEGETATION REMARKS	roadside ditch								
			I	IYDRO	OLOGY				
RECORDED DATA?	<del></del> ,		DESCRIBE:						
DEPTH OF SURFACE WATER: N/A (in)				DE	PTH TO SATE	JRATED SC	DIL: >16 (in)		
DEPTH TO FREE WATER	IN PIT: None	(in)							
PRIMARY WEILAND INDICATORS;				SEC	CONDARY W	etland In	DICATORS:		
PRIMARY WEILAND IN									
PRIMARY WEILAND IN		Water Marks		FA	C Neutral T	est			
PRIMARY WETLAND INI Drainage Patterns		Water Marks			C Neutral T				
		Water Marks							
Drainage Patterns		Water Marks							
Drainage Patterns REMARKS: roadside di	itch			SO	ti Root Chan				
Drainage Patterns REMARKS: roadside di	itch		ry, 0 percent slopes	SO	ti Root Chan			Draina	NGE CLASS: Very poorly drained
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII	itch	oytville silty cla	ry, 0 percent slopes ELD OBSERVATIONS	SO!	i Root Chan	nels	Soil Type Bnoo		
Drainage Patterns	itch	oytville silty cla	ELD OBSERVATIONS	SO! (flats) CONFIRM	i Root Chan	nels	Soil Type Bnoo		
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII	itch	pytville silty cla	ELD OBSERVATIONS	SO (flats) CONFIRM LE DE	ILS  MAPPED TO	nels	Color		
Drainage Patterns  REMARKS: roadside di  MAP UNIT NAME (SERII  TAXONOMY (SUBGROUE	es and Phase): Ho	pytville silty cla	PROF  MATRIX COLO	SO (flats) CONFIRM LE DE	ILS  MAPPED TO  ESCRIPT  M  (M	TELE NO,	COLOR MOIST)		TEXTURE, CONCRETIONS,
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE DEPTH (INCHES)	es and Phase): He	pytville silty cla	PROF  MATRIX COLO (MUNSELL MOIS	SO (flats) CONFIRM LE DE	ILS  MAPPED TO  RSCRIPT  M  (M  Oxio	re Is No, ION IOTTLE C IUNSELL I	COLOR MOIST) cospheres		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE DEPTH (INCHES) 0-2	es and Phase): Horizon	pytville silty cla	PROF  MATRIX COLO (MUNSELL MOIS  2.5Y 3/1	SO (flats) CONFIRM LE DE	ILS  A MAPPED TY  ESCRIPT  M (M  Oxio  10YR 6	re Is No, ION IOTTLE Clunsell l lized Rhiz s/610% as Rhizosph	COLOR MOIST) cospheres		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam
Drainage Patterns Remarks: roadside di Map Unit Name (Serii Taxonomy (Subgroue Depth (Inches) 0-2 2-10	es and Phase): Here's: HORIZON A A B	pytville silty cla	PROF MATRIX COLO (MUNSELL MOIS 2.5Y 3/1 2.5Y 4/1	SO (flats) CONFIRM LE DE	ILS  A MAPPED TY  ESCRIPT  M (M  Oxio  10YR 6	re Is No, ION IOTTLE Clunsell l lized Rhiz s/610% as Rhizosph	COLOR MOIST) cospheres and Oxidized		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns  Remarks: roadside di  Map Unit Name (Serii  Taxonomy (Subgroue  Depth (Inches)  0-2  2-10  10-12+	es and Phase): Hee): HORIZON A A B RE:	pytville silty cla	PROF MATRIX COLO (MUNSELL MOIS 2.5Y 3/1 2.5Y 4/1	SO (flats) CONFIRM LE DE	ILS  A MAPPED TY  ESCRIPT  M (M  Oxio  10YR 6	re Is No, ION IOTTLE Clunsell l lized Rhiz s/610% as Rhizosph	COLOR MOIST) cospheres and Oxidized		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE  DEPTH (INCHES)  0-2 2-10  10-12+ Hydric Soil Indicato	es and Phase): Hee): HORIZON A A B RE:	pytville silty cla	PROF MATRIX COLO (MUNSELL MOIS 2.5Y 3/1 2.5Y 4/1 10YR 4/1	SO (flats) CONFIRM LE DE	ILS  A MAPPED TY  ESCRIPT  M (M  Oxio  10YR 6	re Is No, ION IOTTLE Clunsell l lized Rhiz s/610% as Rhizosph	COLOR MOIST) cospheres and Oxidized		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE  DEPTH (INCHES)  0-2  2-10  10-12+ Hydric Soil Indicato Listed Hyd	es and Phase): Hee): HORIZON A A B RE:	pytville silty cla	PROF MATRIX COLO (MUNSELL MOIS 2.5Y 3/1 2.5Y 4/1 10YR 4/1 Gleyed	SO (flats) CONFIRM ILE DE	ILS  MAPPED TO  ESCRIPT  M  (M  Oxid  10YR 6	OPE IF NO, ION IOTTLE C UNSELL I lized Rhiz //610% ar Rhizosph	COLOR MOIST) cospheres nd Oxidized teres 5GY 4/15%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE  DEPTH (INCHES)  0-2  2-10  10-12+ HYDRIC SOIL INDICATO Listed Hyd REMARKS:	HORIZON  A  A  B  RS:	pytville silty cla	PROF MATRIX COLOR (MUNSELL MOIS 2.5Y 3/1 2.5Y 4/1 10YR 4/1 Gleyed WETLAN	SO (flats) CONFIRM HLE DE	ILS  A MAPPED TO ESCRIPT  M (M  Oxid  10YR 6	IPE IF NO. ION IOTTLE Clunsell lized Rhiz Idea Rhizosph Iot 10% &	COLOR MOIST) cospheres and Oxidized heres 5GY 4/15%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE  DEPTH (INCHES)  0-2  2-10  10-12+ HYDRIC SOIL INDICATO Listed Hyd REMARKS:	ES AND PHASE): Here's: HORIZON A A B RS: Iric	pytville silty cla	PROF MATRIX COLO (MUNSELL MOIS  2.5Y 3/1  2.5Y 4/1  10YR 4/1  Gleyed  WETLAN  Is This Sami	SOI (flats) CONFIRM HLE DE	ILS  A MAPPED TO ESCRIPT  M (M  Oxid  10YR 6	IPE IF NO, ION IOTTLE Clunsell I lized Rhiz //610% ar Rhizosph //610% &	COLOR MOIST) cospheres and Oxidized heres 5GY 4/15%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE  DEPTH (INCHES)  0-2  2-10  10-12+ HyDRIC SOIL INDICATO Listed Hyd REMARKS:  HYDROPHYTIC VEGETA: WSTLAND HYDROLOGY	HORIZON  A  A  B  RE:  ITION PRESENT? YES	pytville silty cla	PROF MATRIX COLOR (MUNSELL MOIS 2.5Y 3/1 2.5Y 4/1 10YR 4/1 Gleyed WETLAN	SOI (flats) CONFIRM HLE DE	ILS  A MAPPED TO ESCRIPT  M (M  Oxid  10YR 6	IPE IF NO, ION IOTTLE Clunsell I lized Rhiz //610% ar Rhizosph //610% &	COLOR MOIST) cospheres and Oxidized heres 5GY 4/15%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam
Drainage Patterns REMARKS: roadside di MAP UNIT NAME (SERII TAXONOMY (SUBGROUE  DEPTH (INCHES)  0-2  2-10  10-12+ Hydric Soil Indicato Listed Hyd	HORIZON  A  A  B  RS:  Iric  IION PRESENT? YE  PRESENT? YES  ? Yes	pytville silty cla	PROF MATRIX COLO (MUNSELL MOIS  2.5Y 3/1  2.5Y 4/1  10YR 4/1  Gleyed  WETLAN  Is This Sami	SO (flats) CONFIRM FLE DE	ILS  MAPPED TO  RSCRIPT  M (M  Oxid  10YR 6  10YR 6	IPE IF NO, ION IOTTLE Clunsell I lized Rhiz //610% ar Rhizosph //610% &	COLOR MOIST)  cospheres  nd Oxidized  neres  5GY 4/15%	UNTEREL	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silty Clay Loam

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality

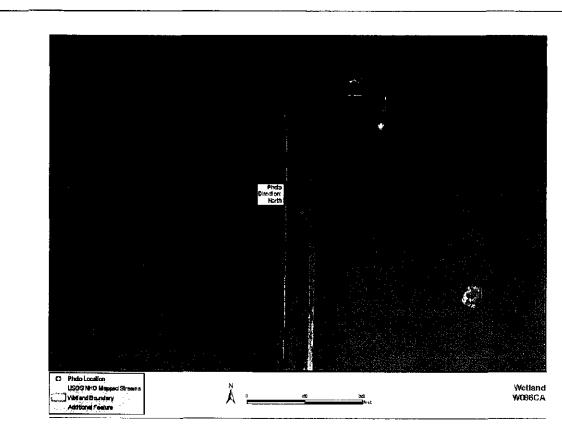
and aren't significantly disturbed.

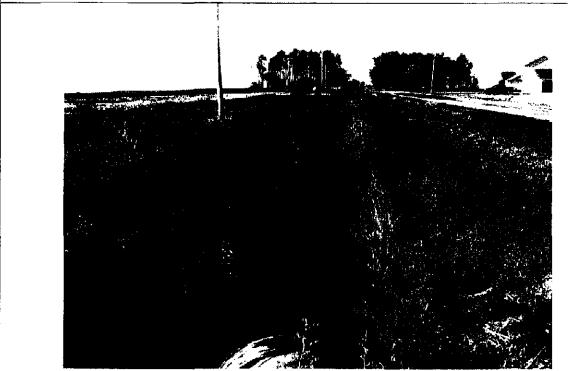
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology -- hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field F	orm Quantitative Rating		
Site: W&	7AA/NOSSAA/WGZCARater(s):	PHOH	Date: 9/17/09
22	Metric 1. Wetland Area (size Select one elze class and essign score.	·).	
Mack 6 pts. eubeotal	>60 acres (>20.2he) (6 pts)  25 to <50 acres (10.1 to <20.2he) (5 pts)  10 to <25 acres (4 to <10.1he) (4 pts)  3 to <10 acres (1.2 to <4he) (3 pts)  0.3 to <3 acres (0.12 to <1.2he) (2pts)  0.1 to <0.3 acres (0.04 to <0.12he) (1 pt)  <0.1 acres (0.04he) (0 pts)	6.7acre	
1 3	Metric 2. Upland buffers and	i surrounding land us	<b>e.</b>
max 14 pts. subtotel	2a. Calculate average buffer width. Select only one WIDE. Buffers average 50m (164ft) or mo MEDIUM. Buffers average 25m to <50m (164ft) or mo MEDIUM. Buffers average 25m to <50m (164ft) or mo NARROW. Buffers average 10m to <25m VERY NARROW. Buffers average <10m (164ft) or	and assign score. Do not double check. re around wetland perimeter (7) 82 to <164ft) around wetland perimeter (4 (32ft to <82ft) around wetland perimeter (<32ft) around wetland perimeter (0) double check and average. rairie, savannah, wildlife area, etc. (7) ung second growth forest. (5) i pastura, park, conservation tillage, new	(1)
10 13	Metric 3. Hydrology.		
mer 30 php. subtated	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/intermittent surface water (3)  Perennial surface water (lake or stream) (3  3c. Maximum water depth. Select only one and assi  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. Score	Part of wettan Part of riperier Part of wettan Part of riperier Part of wettan Part of vettan Part of riperier Part of vettan Part of riperier Part of vettan Part of riperier Part of ripe	iplain (1) sm/lake and other human use (1) d/upland (e.g. forest), complex (1) n or upland comidor (1) saturation. Score one or dbi chechanently inundated/saturated (4) ndated/saturated (3)
	Recovering (3) tile dike weir	filling/geding road bed/RR t dredging other	
7 20 max 20 pts. subtrotal	Metric 4. Habitat Alteration  4a. Substrate disturbence. Score one or double che None or none apperent (4) Bacovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign excellent (7) Very good (6) Good (5) Moderately good (4) Eair (3) Reser to fair (2) Foor (1)	ook and average. In score.	
20	4c. Plabitat alteration. Score one or double check at the None or none apparent (9) Recovered (8) Recovering (3) Recent or no recovery (1) Recent or no recovery (1)	sturbances observed ahrub/sapiling herbaceous/s	quatic bed removal

ORAM v. 5.0 F	ield Form Quantitative Rating			
Site: Wo4	17AA WORSAA WOTZ CA Rater	(s): 1 <b>Z</b> (	60K-	Date: 7/17/09
7	ر اه			
guitatotal	first page			
- 2	Metric 5. Special Wetlan	ids.		
max 10 pts. au	Check all that apply and score as indicated.  Bog (10)			
	Fen (10) Old growth forest (10)			
	Mature forested wetland (5)			
	Lake Erie coastal/infortery wetland-u	_		
	Lake Erie coastal/tributary wetland-r Lake Plain Sand Prairies (Oak Oper	•	iogy (o)	
	Relict Wet Prairies (10)			
	Known occurrence state/federal three Significant migratory songbird/water			
	Category 1 Wetland. See Question			
				•
{   7	Metric 6. Plant commun	itles, int	erspersion, r	nicrotopography.
max 20 pts. sui	biolal 6a. Wetland Vegetation Communities.	<u>Vegetation</u>	Community Cover Sca	
	Score all present using 0 to 3 scale.	0		<0.1ha (0.2471 acres) contiguous area
	Aquatic bed    Emergent	1		mprises small part of wetland's moderate quality, or comprises a
	Shrub		significant part but I	
	Forest	2	4	mprises significant part of wetland's
	Mudflats		_	moderate quality or comprises a small
	Open water Other	3	part and is of high of	uality is significant part, or more, of wetland's
•	6b. horizontal (plan view) interspersion.		vegetation and is of	•
	Select only one.			
	High (5)		escription of Vegetatio	n Quality /or predominance of nonnetive or
	Moderately high(4) Moderate (3)	łow	disturbance tolerant	•
	Moderately low (2)	mod		ant component of the vegetation,
	(1)		, -	and/or disturbance tolerant native app
	None (0)  6c. Coverage of Invasive plants. Refer		•	, and species diversity moderate to t generally w/o presence of rare
	to Table 1 ORAM long form for list. Add		threatened or andar	<del>-</del>
	or deduct points for coverage	high	A predominance of na	tive species, with nonnative app
	Extensive >75% cover (-5)			oferant native spp absent or virtually
	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)			p diversity and often, but not always, , threatened, or endangered app
	Nearly absent <5% ower (0)		T alo proportos or toto	, as a second of the second opposite the secon
	Absent (1)		Open Water Class Qu	
	6d. Microtopography.  Score all present using 0 to 3 scale.		Absent <0.1ha (0.247 Low 0.1 to <1ha (0.247	
	Vegetated hummucks/tussucks	1 2	Moderate 1 to <4ha (	
	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres)	
	Stending deed >25cm (10in) dbh			
	Amphibian breeding pools	Microtopog O	raphy Cover Scale Absent	
		1		ounts or if more common
			of marginal quality	
		2		amounts, but not of highest
_		3	Present in moderate of	mounts of highest quality
<u> </u>			and of highest quali	
2/ GI	RAND TOTAL (max 100 pts)			

Refer to the most recent ORAM Score Calibration Report for the scoring breatpoints between wedned categories at the following address: http://www.epc.etate.ch.sakiswi401/401.html
least revised 1 February 2001 jjm





Wetland W086CA

DATE: 09/17/2009 INVESTIGATORS: Hook HUC 12 CODE: 041000070703 WETLAND QUALITY: Low		CLIENT/PROJECT NAME:	Heartland		ed Stream ID I	vo: S086CA		
INVESTIGATORS: Hook Huc 12 Code: 041000070703		<del></del>	Heartland	ASSOCIATED STREAM ID NO: S086CA				
Huc 12 Code: 041000070703				d Wind LL	C./ Blue Cree	k Wind Farm		
· · · · · · · · · · · · · · · · · · ·	Huc 12 Code: 041000070703 Township: Union		Van Wert		Rover File: 1	RAH091709A.cor	QUAD NAME: Scott	
WETLAND QUALITY: Low		Tawnsнip: Union		Рното No.: 0				
				Type: Palus Emergent	trine			
PLANT S	PECIES		S	TRATUM	INDI	CATOR	PERCENT COVER	
1. Typha latifolia			He	erbaceous	Ob	ligate	40 %	
2. Scirpus validus				erbaceous		ligate	30 %	
Scirpus atrovirens     Leersia oryzoides				erbaceous erbaceous		ligate ligate		
5.			1.11	tionceous	O.D.	ugau	%	
6.							%	
PERCENT OF DOMINANT SPECIES THA	TARE OBL,	FACW, FACW+, FACW-	, FAC+, or l	FAC (EXCLUI	ING FAC-): 100	<u> </u>		
VEGETATION REMARKS: ditch								
			HYDRO	OLOGY				
RECORDED DATA?		Describe:						
Depth of Surface Water: N/A (in)			DE	ртн то Баті	RATED SOIL: >	l6 (in)		
DEPTH TO FREE WATER IN PIT:	lone (in)							
PRIMARY WETLAND INDICATORS:				CONDARY W	ETLAND INDICAT	ORS:		
			FA	C Neutral T	est			
Drainage Patterns		•						
REMARKS: dikh								
			So	ILS	_			
MAP Unit Name (Series and Phase	): Hoytvill	e silty clay, 0 percent slop	es (flats)			DRAIN	AGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):		FIELD OBSERVATIO	ns Confirm	i Mapped Ty	PE. IF NO, SOIL	CYPE ENCOUNTERS	BD?	
,		Pro	FILE DI	SCRIPT	ON			
DEPTH (INCHES) HOR	ZON	MATRIX COL (MUNSELL MO			OTTLE COLOR UNSELL MOIS		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-2 A		2.5Y 7/6	·				Sand	
2-10 A		10YR 5/3			_		Sand	
10-12+		10YR 4/1			7.5YR 5/6 50%	<u> </u>	Clay Loam	
HYDRIC SOIL INDICATORS:					_			
Listed Hydric		Gleyed						
REMARKS:								
····		WETLA	ND DE	TERMIN.	ATION			
HYDROPHYTIC VEGETATION PRESENT	? Yes	<del></del>			WEILAND? Ye	s		
WETLAND HYDROLOGY PRESENT? Ye			-	Wetland?				
HYDRIC SOILS PRESENT? Yes								
NORMAL CIRCUMSTANCES? Yes		SIGNIFICAL	NTLY <b>D</b> ISTU	RBED: No		POTENTIAL PROP	LEM AREA? No	
	ION OF	WETLAND CROS			ID WETLA			
						Korrent		

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

Site:		m Quantitative Rating	Rater(s):	P. HOUR	Date: 1	17/09
THICK & play.		Wetric 1. Wetla	sign soore.			
		25 to <50 acres (10 10 to <25 acres (4 3 to <10 scres (1.2	0.1 to <20.2ha) (5 pts) to <10.1ha) (4 pts) to <4ha) (3 pts) 12 to <1.2ha) (2pts) 0.04 to <0.12ha) (1 pt)	0.3	acte	
l	2	Metric 2. Uplan	d buffers and	surrounding l	land use.	+
mex 14 pts.		MEDIUM. Buffers  MARROW. Buffers  VERY NARROW.  Intensity of surrounding I  VERY LOW. 2nd field (>  MODERATELY HI	erage 50m (164ft) or more average 25m to <50m (85 s average 10m to <25m ( Buffers average <10m (< land use. Select one or o growth or older forest, pou 10 years), shrubland, you GH. Raaldential, fenced	around welland perimete 2 to <184ft) around wellan 32ft to <82ft) around wella 32ft) around welland perindouble check and average life, savanneh, wildlife are ng second growth forest. (6	r (7) d perimeter (4) and perimeter (1) neter (0) s, etc. (7) 5) n tillage, new fallow field. (3)	
8	10	Metric 3. Hydro	ology.			
rnux SO pia.	\$	c. Maximum water depth. : >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to <0.4m (<15.7in) (1	ter (5) (3)  ent surface water (3) water (lake or stream) (5) Select only one and assig	ad. Duration score.	ctivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other in  Part of wetland/upland (e.g. fore  Part of riparian or upland corrido  in inundation/saturation. Score  Semily to permanently inundated  Regularly inundated/saturated (3)  Seasonally saturated in upper 3(	st), complex (1) or (1) one or dbl chec /saturated (4
	3		erent (12) Check all dist	urbances observed		7
		Recovered (7) Recovering (3) Recent or no recovered	rery (1) dike weir stormwa		point source (nonstormwater) filling/grading road bed/RR track dredging other	
6	16	Metric 4. Habit	at Alteration a	ınd Developm	ent.	
mex 20 phs.	4	Is. Substrate disturbance.  None or none appointment of the process of the proces	arent (4) ` rery (1) elect only one and assign 4)	score.		
	16	None or none apper Recovering (6) Recent or no recovering (3)	/ery (1) mowing grazing clearcutt selective	ing cutting control in including control in includi	shrub/sapiing removal herbecoous/squatic bed remova sedimentation dredging farming nutrient enrichment	

19

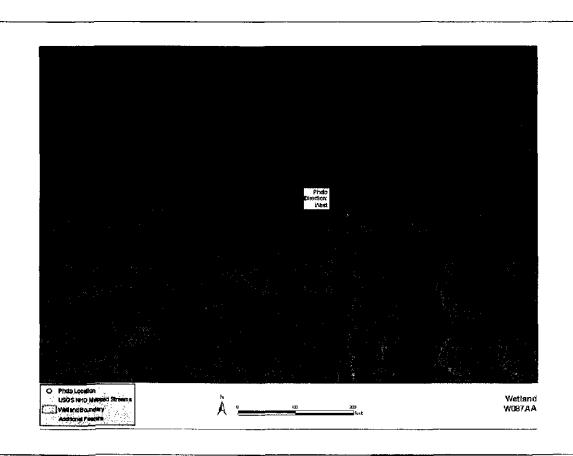
GRAND TOTAL (max 100 pts)

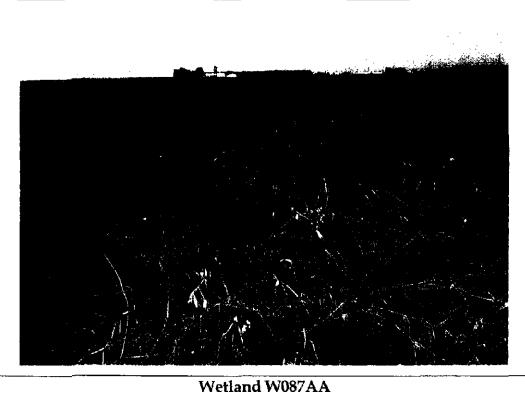
Refer to the most recent ORAM Score Calibration Report for the acceling breakpoints between wetland ostegories at the following address: http://www.epa.atate.ch.uardsm/401/401.html
[ast revised 1 February 2001]]m

3

Present in moderate or greater amounts

and of highest quality





SURVEY TYPE: Blu	e Creek Win	d Farm					No.: W087A	4	
	,						EAM ID NO: N/A		
DATE: 10/14/2009		Client/P	ROJECT NAME:	Heartland	d Wind LL	C./ BI	ue Creek Wind Fa	ırm	
Investigators: Hook		STATE/CO	Ουντγ: Ohio/F	Paulding ROVER FILE: RAF		er File: RAH091014	A.cor	QUAD NAME: Latty	
Huc 12 Code: 04100007	1003	Townshi	r: Blue Creek			Рно	ro No.: 001		
WEILAND QUALITY: Lov	W				TYPE: Palus Emergent	trine			
	Plant Speci	ES		S	TRATUM		INDICATOR	İ	PERCENT COVER
1. Leersia oryzoides				He	erbaceous		Obligate		40 %
Echinochloa sp.     Polygonum sp.					erbaceous		Fac Wet		30 % 10 %
4.					erbaceous	$\dashv$	Fac Wet	1	%
5.									%_
6.								L	<i>y</i> <sub>6</sub>
PERCENT OF DOMINANT	SPECIES THAT ARE	OBL, FACW, FA	CW+, FACW-,	FAC+, OR 1	FAC (exclui	ING F	AC-): 80		<del>,</del>
VEGETATION REMARKS;	drainage ditch								
				HYDRO	OLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WATER: N/A (in)				De	PTH TO SATE	JRATED	Sott: 0 (in)		
DEPTH TO FREE WATER IN PTT: 2 (in)									
PRIMARY WETLAND IND	ICATORS:			Se	CONDARY W	ETLAND	INDICATORS:		
Saturated Upper 12in									
Drift Lines									
REMARKS: drainage di	tch								
				So	ILS				
Map Unit Name (Serie	s and Phase): Ho	ytville silty clay,	0 percent slope	es (flats)		,		DRAIN	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	):	Fiel					NO, SOIL TYPE ENCO	UNTERE	9?
			Pro	FILE DI	ESCRIPT	ON			
DEPTH (INCHES)	Horizon	i i	Matrix Col Munsell Mo		1	-	E COLOR LL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-9	0		2.5Y 3/2	·		7,5Y	R4/4		Silt Loam
9+	C		5Y 3/1				R4/4		Sandy Clay Loam
HYDRIC SOIL INDICATOR									
Listed Hyd	ric		Gleyed						
Remarks:									
			WETLA	ND DE	TERMIN.	ATIC	N		
HYDROPHYTIC VEGETAT	ION PRESENT? Yes	)	Is This San	MPLING POI	INT WITHIN A	WEIL	AND? Yes		
WETLAND HYDROLOGY	Present? Yes		Is This An	ISOLATED 1	Wetland? 1	No			
Hydric Soils Present?	Yes								
NORMAL CIRCUMSTANC			SIGNIFICAN	VELY DISTU	RBED: No		POTENTIA	l Probl	em Area? No
D	ESCRIPTION	OF WETLA	ND CROS	SING T	YPES AN	DΝ	ETLAND QU.	ALITY	CRITERIA
HIGH QUALITY WETL	AND: no indication	on of stress or dis	sturbance in we	etland or ac	djacent area	- diver	se and mature veget	ation tv	pes - hydrologic and soil indicators
					,				, ,

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



## ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu		WETLAND ID No.: U087AA							
					Associated Wetland ID No: W087AA				
DATE: 10/14/2009			CLIENT/PROJECT NAME:	Heartland	d Wind LL	C./ Blue	e Creek Wind I	Farm	
Investigators: Hook	**		STATE/COUNTY: Ohio/!	Paulding	QUAD NAME: Latty				
Huc 12 Code: 04100007	1003		TOWNSHIP: Blue Creek	•	Рното No.: 001				
WETLAND QUALITY: N/A		<u> </u>			LAND TYPE: N/A YPE: Upland				
	PLANT SPEC	IES		S	TRATUM		INDICATOR	T	PERCENT COVER
1. Festuca sp.				H	rbaceous		Fac Up		40 %
2. Bromus inermis				H	rbaceous		Upland		_30 %
3. Daucus carota					erbaceous		Upland		10 %
4. Rubus allegheniens				H	erbaceous		Fac Up-		10 %
5,								<del>-  </del>	ey /o
6.				L					%
PERCENT OF DOMINANT	SPECIES THAT AR	EOBL,	FACW, FACW+, FACW-	, FAC+, OR	FAC (EXCLUI	DING FAC	C-); 0		
VEGETATION REMARKS:									
				HYDR	DLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WATER: N/A (in)				Di	ртн то Ѕат	JRATED S	iou: >16 (in)		•
DEPTH TO FREE WATER IN PIT: None (in)									
PRIMARY WETLAND INDICATORS:				SE	CONDARY W	ETLAND I	INDICATORS:		
None									
REMARKS:							_		
				So	ILS			-	
MAP UNIT NAME (SERIES	and Phase): H	oytville	silty clay, 0 percent slop	es (flats)				DR	AINAGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	:		FIELD OBSERVATION	NS CONFIRM	MAPPED T	PE IF NO	, SOIL TYPE ENC	OUNTI	RED?
			Pro	FILE DI	SCRIPT	ION		,_,,,	
DEPTH (INCHES)	Horizon	4	MATRIX COL (MUNSELL MO			<b>1</b> OTTLE (	Color Moist)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-9	A		2.5y 3/2						Sandy Clay Loam
9+	В		2.5y 3/3						Clay Loam
								<u></u>	
HYDRIC SOIL INDICATOR	s:								
Remarks:							· · · ·		
			WETLA	ND DE	TERMIN	ATION	J		
Hydrophytic Vegetat	ION PRESENT? N	0			NT WITHIN				
WETLAND HYDROLOGY					WETLAND?				
					wa wellawi i	17 13			
HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANC			Stonieroa	NTLY DISTU	BRETY No.		PATEL	1AT De	OBLEM AREA? No
	<u></u>	NOF	WETLAND CROS			in Wi			
U	LOCALI I IU)	V OF	AABI PULIA CKO	JULIU I	ares al	11 7 TE	THAIND Q	ابالحواد	III CAILBAIA
HIGH QUALITY WETL are characteristic of the s									n types – hydrologic and soil indicators n observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

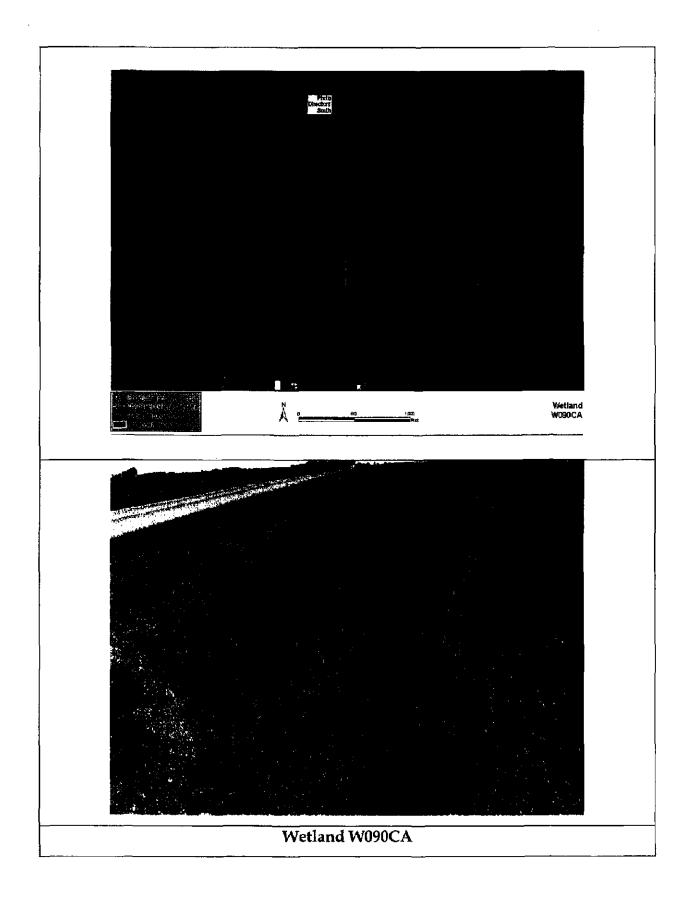
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or difching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site: W 0 8 7 AA Rater(s): PHock Date:    Color   Date:   Date	10/14/09
Select one size class and assign score.    Select one size class and assign score.   Select one size class and assign score.   Select one size class and assign score.   Select one size class and assign score.   Select one size class and select one size class and select one size class (6 pts)   Select one size class and select one size class (6 pts)   Select one size class and select one size class (6 pts)   Select one size class and select one size class (6 pts)   Select on	<del></del>
>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)  Metric 2. Upland buffers and surrounding land use.    Wide    •	
max 14 pts. subtotal 2a. Calculate average buffer width. Select only one and assign accre. Do not double check.  WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)  MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)	
WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)	
WERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, sevenneh, wildlife area, etc. (7)  LOW. Old field (>10 years), shrubland, young second growth forest. (5)  MODERATELY HIGH. Residential, fenced pasture, park, conservation tiliage, new failow field. (3)  HIGH. Urban, industrial, open peature, row cropping, mining, construction. (1)	•
10 13 Metric 3. Hydrology.	
max 30 pts. subtoted  3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  Percepitation (1)  Seasonal/Intermittent surface water (3)  Percential surface water (lake or stream) (5)  3c. Maximum water depth. Select only one and assign score.  >0.7 (27.6in) (3)  Q.4 to 0.7m (15.7 to 27.6in) (2)  Seasonally saturated in upper Seasonally saturated in upper	rest), complex (1) dor (1) re one or dbl check, ed/saturated (4) l (3)
3e. Modifications to natural hydrologic regime. Score one or double check and everage.    None or none apparent (12)   Check all disturbances observed	
7 20 Metric 4. Habitat Alteration and Development.	
Make 20 pts.  **All Substrate disturbance. Score one or double check and average.    None or none apparent (4)	•
None or none apparent (9)  Becovered (6) Recovering (3) Recent or no recovery (1)  Check all disturbances observed  mowing grazing herbaceous/aquatic bed remo clearcutting selimentation dredging farming woody debris removai toxic pollutants nutrient enrichment	val .

<b>ORAM v. 5.</b>	Field Form	Quantitative	Rating
-------------------	------------	--------------	--------

Site:	W	287	4A	Rater(s):	10	2 Hook	Date: 10/14/09
	20		·				
						•	
	stotel first pe	<b>P</b>					
_	20	Metr	ic 5. Special \	Wetlands.			
mást 10 pts.	aubéotal	Check al	I that apply and score as i	ndicated.		•	
		<u> </u>	Bog (10)   Fen (10)				
			Old growth forest (10)				
	-	<b>-</b>	Mature forested wetlend	(6)			
			Lake Erie constal/tributa				
			Lake Erie coestal/tributa	-	-	egy (5)	
		<u> </u>	Lake Plain Sand Prairies Relict Wet Prairies (10)	(Cak Openings) (	(10)		•
ŕ		<b>}</b> -	Known occurrence state	federal threatenes	or ender	ocered species (10)	
			Significant migratory sor				•
			Category 1 Wetland, Se	_			
			_				
21	22	Metr	ic 6. Plant co	mmunities	s, inte	erspersion, microt	opography.
mez 20 pts.	eubtotal		land Vegetation Communi			Ommunity Cover Scale	
		Score all	present using 0 to 3 scale	g	0	Absent or comprises <0.1ha (0.:	2471 acres) contiguous area
			Aquetic bed		1	Present and either comprises ar	
		1	Emergent			vegetation and is of moderate	,
		<u> </u>	Shrub Forest	_	2	significant part but is of low que Present and either comprises si	
		-	Mudifials		4	vegetation and is of moderate	•
			Open water			part and is of high quality	
			Other	_	3	Present and comprises significa	nt part, or more, of wetland's
			zontal (plan view) interspe	reion.		vegetation and is of high quali	У
-		Select or	nry one. 7 High (5)	B.L.		ended on all the sales of the	,
			Moderately high(4)	1421	ION.	scription of Vegetation Quality Low spp diversity and/or predon	
		-	Moderate (3)			disturbance tolerant native sp	
			Moderately low (2)		mod	Native app are dominant compo	nent of the vegetation,
			Low (1)			although normalive and/or dist	• •
			]None (0) erage of invesive plants. ∣	Dafac		can also be present, and spec moderately high, but generally	
			1 ORAM long form for list			threatened or endangered spp	•
	,		t points for coverage		high	A predominance of native speci-	
			Extensive >75% cover (-	•	•	and/or disturbance tolerant na	tive spp absent or virtually
			Moderate 25-75% cover			absent, and high spp diversity	
		}	Sparse 5-25% cover (-1) Nearly absent <5% cover			the presence of rare, threaten	od, or endangered spo
			Absent (1)		iffet and	Open Water Class Quality	
			otopography.		0	Absent <0.1ha (0.247 acres)	
	•	Score al	present using 0 to 3 scal		1	Low 0.1 to <1ha (0.247 to 2.47 a	
			Vegetated hummucks/tu		2	Moderate 1 to <4ha (2.47 to 9.8	8 acres)
		<u> </u>	Coarse woody debris >1 Standing dead >25cm (*)	• • •	3	High 4ha (9.88 acres) or more	
			Amphibian breeding poo	•	rotonost	aphy Cover Scale	
			T. and the state of the state o		0	Absent	
					1	Present very small amounts or it	more common
						of marginal quality	
					2	Present in moderate amounts, b	-
					3	quality or in small amounts of	
	•				3	Present is moderate or greater a and of highest quality	BENJA ILB
11.7	GRAN	D TO	TAL (max 100 pt	s)		The state of the s	

Refer to the most recent CRAM Scare Calibration Report for the according breekpoints between welland exaggines at the following address: http://www.eps.state.oh.us/dow/401/401.html tast revised 1 February 2001 [ims



										_	
SURVEY TYPE: Blue	e Creek W	ind Farm					No.: W090C.	<u>A</u>		1	
DATE: 09/17/2009		CLIENT	PROJECT NAME:	Heart):			ue Creek Wind F	 arm		_=	
Investigators: D.West	, M. Nechvatal		COUNTY: Ohio/1				er File: R091709AI		QUAD NAME: Latty		
Huc 12 Code: 04100007	1003	Towns	нір: Blue Creek	<u> </u>	PHOTO No.: 089A50N & 089A51S						
WETLAND QUALITY: Lov	·				LAND TYPE: Palustrine TYPE: Emergent						
	PLANT SPE	CTES			STRATUM		INDICATOR		PERCENT COVER		
<ol> <li>Scirpus atrovirens</li> </ol>					Herbaceous		Obligate		20 %		
2. Leersia oryzoides					Herbaceous_		Obligate		50 % 10 %		
3. Carex sp. 4. Typha latifolia				<del>                                     </del>	Herbaceous Herbaceous	<del></del>	Fac Wet Obligate	+	30 %		
5.		7101 Duccous		O UII C		%					
6.						%					
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, FACW, I	FACW+, FACW-,	,FAC+, (	OR FAC (EXCLUI	DING FA	AC-): 100	_			
VEGETATION REMARKS:	roadside ditch	; linear wetland, o	irainage for adj a	ag field t	o W						
HYDROLOGY											
RECORDED DATA? DESCRIBE:											
DEPTH OF SURFACE WAT	ER: 1 (î	1)			DEPTH TO SATU	RATED	901L: 0 (in)				
DEPTH TO FREE WATER I	N Pit: 0 (î	n)			_						
PRIMARY WETLAND IND	ICATORS:				SECONDARY W	ETLAND	INDICATORS:				
Inundated		Saturated Upp	er 12in		Local Soil Surv	еу					
Drainage Patterns					FAC Neutral T	est	•				
REMARKS: roadside dit	ch; linear wetla	nd, drainage for	adj ag field to W								
				S	SOILS						
MAP UNIT NAME (SERIES	and Phase):	Hoytville silty cla	y, 0 percent slop	es (flats)	s (flats)				GE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)		Fi	ELD OBSERVATION	ns Confirm Mapped Type. If No, Soil Type En			O, SOIL TYPE ENCO	UNTERED	7		
					DESCRIPT						
DEPTH (INCHES)	Horizo	NO	MATRIX COL (MUNSELL MO		MOTTLE COLOR (MUNSELL MOIST)				TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-2	A		10YR 5/1			2% 10	YR 4/6		Silty Clay Loam		
2-12+	В	1	10YR 5/1				YR 4/6		Clay loam		
			<del></del>								
HYDRIC SOIL INDICATOR					<u> </u>				······································		
Listed Hydi	ric		Gleyed						· · · · · · · · · · · · · · · · · · ·		
Remarks:								*****			
			WETLA	ND D	ETERMIN	ATIO	N				
Hydrophytic Vegetat	ION PRESENT?	Yes	IS THIS SA	MPLING	POINT WITHIN	A WETL	AND? Yes				
Wetland Hydrology					ED WETLAND?						
Hydric Soils Present?											
NORMAL CIRCUMSTANC			SIGNIFICATI	NTT V The	STURBED: No		Вотект	AT PROPERTY	em Area? No		
		ALL OF TARRES				AF CEL					
<u>_</u>	ESCRIPTIC	WA OR AARLI	AND CROS	DING	1 YPES AN	M M	ETLAND QU	ALLIY	CRITERIA		
HIGH QUALITY WET! are characteristic of the s									pes – hydrologic and soil indicato served.	rs	

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – alightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



## ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek		· · · · · · · · · · · · · · · · · · ·			WETLAND ID NO.: U090CA ASSOCIATED WETLAND ID NO: W090CA					
DATE: 09/17/2009			CLIENT/Pr	ROJECT NAME: H	eartland						,
Investigators: D.Wes	t, M. Nechvatal			UNTY: Ohio/Pau		ng Qúad Name: Latty					
Huc12 Cops: 04100007	1003		TOWNSHI	r: Blue Creek	<del></del>		Рното <b>N</b> o	: 090C46S			
						TYPE: N/A Jpland		· · · · · · · · · · · · · · · · · · ·			<del>,</del>
PLANT SPECIES						RATUM	IN	DICATOR		PERCENT COVER	
1. Trifolium pratense						baceous		Fac Up -		20 %	
2, Poa sp.						baceous		Fac Up	<b> </b>	60 % 20 %	
<ol> <li>Taraxacum officinale</li> <li>4.</li> </ol>	:				Hei	baceous		Fac Up -	<del> </del>	20 % %	
5.										%	
6.									<u> </u>	%	
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 0											
Vegetation Remarks:											
				I	IYDRO	LOGY					
RECORDED DATA?				Describe:							
DEPTH OF SURFACE WAS	rea: N/.	A (in)			Der	TH TO SAT	JRATED SOIL:	>16 (in)			
DEPTH TO FREE WATER	N PIT: No	ne (in)								·	
PRIMARY WEILAND IND	ICATORS:				Sec	ONDARY W	ETLAND INDIC	ATORS:		,	
None											
				· <del>*</del>							
Remarks:											
		,			Soi	LS					
MAP UNIT NAME (SERIE	s and Phase):	Hoytville	silty clay,	0 percent slopes (	(flats)				DRAINAGE C	LASS: Very poorly drain	ed
Taxonomy (Subgroup)	:		Field	OBSERVATIONS	CONFIRM	Mapped Ty	PE. IF NO, SO	il Type Encoi	INTERED?		
				Profi	LE DE	SCRIPT	ON				
DEPTH (INCHES)	Horizo	)N		Matrix Color Junsell Mois		MOTTLE COLOR (MUNSELL MOIST)				ture, Concretions, Structure, etc.	
no soil pit dug				no soil pit dug							
no soil pit dug											
	L		<u></u>								
Hypric Soil Indicator	RS:	<del></del>								· · · · · · · · · · · · · · · · · · ·	
		<u> </u>			L						<u> </u>
REMARKS:											
				WETLAN	D DEI	ERMIN	ATION				
Hyprophytic Vegetat	TON PRESENT?	No		Is This Samp	ung Poin	T WITHIN	WETLAND?	No			
WHILAND HYDROLOGY	PRESENT? No			Is This An Is	OLATED V	YETLAND?	N/A				
Hypric Soils Present?	No										
NORMAL CIRCUMSTANC				SIGNIFICANTI	Y DISTUR	BED: No		POTENTIA	L PROBLEM A	REA? No	
		N OF	WETT.A	ND CROSS			ID WRTI.				
TITOU OF LATER AND ADDRESS OF THE PARTY AND AD	4 NID: ! 3'		- v mr L LAC1				*** * * ******************************				

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation,

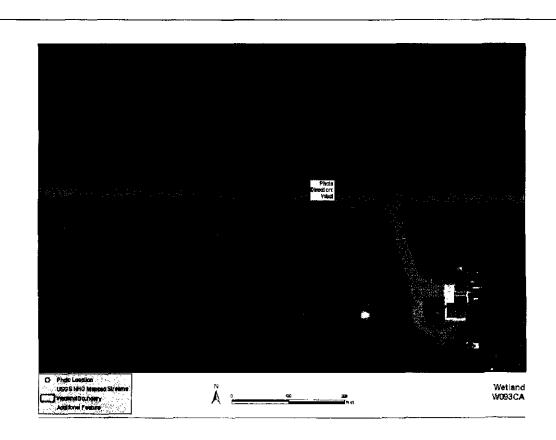
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

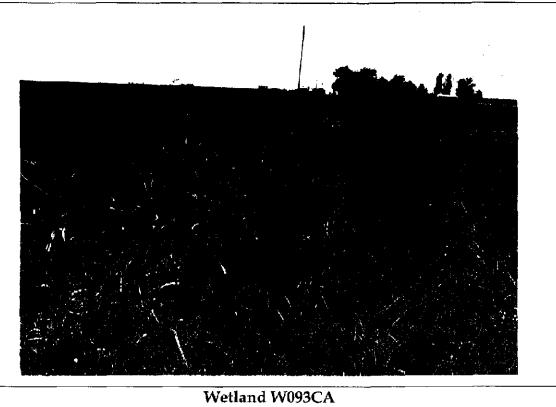
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site:		Rater(s): 737	ير المراقع Date: المراقع المرا	5
22	Metric 1. Wetland	Area (size)		
ipas 8 pas, subtotat	Selectione size class and assign scare	* *		
(red o pro, and (Up)	>50 acros (>20.2ha) (6 pts)			
	25 to <50 acres (10.1 to <20.	- · · ·		
	10 to <25 acres (4 to < 10. fb;			
	3 to <10 acres (1.2 to <4ha)	· · ·		
	0.3 to <3 agres (0.12 to <1.2) 0.1 to <0.3 agres (0.04 to <0.			
	<0.1 acres (0.04ha) (0 pls)	(1, 60)		
	}			
13	Metric 2. Upland I	ouffers and sur	rounding land use.	
max 14 pts. subsolet	Za. Calculate average butter width. So			
•	· · · · · · · · · · · · · · · · · · ·	(164ft) or more around wetland 5m to <50m (82 to <164ft) aroun		
		19m to <25m (32ft to <82ft) arou	• • •	
	VERY NARROW. Buffers av	•	•	
	2b. Intensity of surrounding land use.	• • •	•	
		older forest, prairie, sevamah, w	•	
		shrubland, young secured growth		
			servation tillage, new tallow field. (3)	
	HIGH. Urban, Industrial, ope	en pasture, now cropping, mining,	construction. (1)	
14 7115	Metric 3. Hydrolog	ūV.		
max 30 pts. #ubtehei	3a. Sources of Water. Score all that a		3b. Connectivity. Score all that apply.	
	High pH groundwater (5)		100 year floodplain (1)	
	Other groundwater (3)		Between stream/lake and other human use (	(1)
	Precipitation (1)		Part of wetland/upland (e.g. forest), complex	(1)
	Seasonal/Intermittent surface	* *	Part of riparien or upland corridor (1)  3d. Duration inunitation/saturation. Score one or dbi	ماد ساد
	Perennial surface water (lake 3c. Maximum water depth. Select only		Semi- to permanently inundated/saturated (4	
	>0./ (27.6m) (3)	) silo med thought obsite.	Regularly inundated/seturated (3)	,
	0.4 to 0.7m (15.7 to 27.6in) (	2)	Seasonally inundated (2)	
	<0.4m (<15.7m) (1)	•	Sepsonally saturated in upper 30cm (12in) (	1)
	3e. Modifications to natural hydrologic	regime. Score one or double cl	eck and average.	
	None or none apparent (12)	Check all disturbances observ	ved	
	Recovered (7)	<b>V</b> dilch	point source (nonstormwater)	
	Recovering (3)	Ule Ule	Ming/grading	
	Recent or no recovery (1)	dike	road bed/RR track	
		Weir	dredging	
	=		other	
1 205	Metric 4. Habitat	Nikanadian aad P	a rala mana	
	Jimetric 4. Habitat /	Alteration and L	evelopment.	
max 20 pm. subtotal	4a. Substrate disturbance. Score one  * None or none apparent (4)	or double check and average.		
	C Recovered (3)			
	Recovering (2)			
	Recent or no recovery (1)			
	46. Habitat development. Select only	una aug assign acore.		
	Excellent (7)			
	Very good (6) Good (5)			
	Moderately good (4)			
	Feir (3)	•		
	Poor to fair (2)			
	Poor (1)			
	4e Hahitat atteration. Score one or do	public check and average.		
	None or none apparent (9)	Check all disturbances observ	ed	
	Recovered (6)	Mowing	shrub/sapiling removal	
	Recovering (3)	grazzing	herbaceous/aquatic bed removal	
F	Recent or no recovery (1)	clearcutting	sadimentation	
/∧ c		selective culting woody debris removal	dredging farming	
- J	1	loxic pollutants	nutrient erwichment	
aubtotel livis pu	<b>-</b> -			

Site: / OP / A	Ra	ter(s):	a distribution	Date:
suchoral this page	ric 5. Special We	tlande		
	•	uanus.		
enay to pis subtotal Check all	I that apply and score as indicated.  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wettand (5)			
	Lake Erie coastal/tributary welland	unrestricted hydrology (1	0)	
	Lake Erie coastal/tributery wetland-	restricted hydrology (5)		
<u> </u>	Lake Plain Sand Prairies (Oak Ope	nings) (10)		
	Relict Wet Praires (10)			
	Known occurrence state/federal thi	reatened or endangered s	species (10)	
	Significant migratory songbird/water		* '	
<del></del>	Category 1 Wetland, See Question		•	
		•	•	
	ric 6. Plant comn			rotopography.
,	tend Vegetation Communities.	Vegetation Communit		
<del></del>	t present using 0 to 3 scale.	0	Absent or comprises <0, tha (0	
읟	Aquatic bed	1	Present and either comprises a	= -
	Emergent		vegetation and is of moderate	• •
Ľ	Shrub		significant part but is of low q	
<u> </u>	<del></del>	2	Present and either comprises s	•
<u> </u>	Modflats		vegetation and is of moderate	i quality or comprises a small
· · · · · · · · ·	Open water		part and is of high quality	
<u> </u>	Other	3	Present and comprises signification	ant part, or more, of welland's
6b hori	izontal (plan view) Interspersion.		vegetation and is of high qual	ity
Select o	niy one.			
1	High (5)	Narrative Description	of Vegetation Quality	
L.	Moderately high(4)	łow	Low spp diversity and/or predo	minance of nonnative or
	Moderate (3)		disturbance tolerant native sp	ecies
	Moderately low (2)	mod	Native spp are dominant compo	onent of the vegetation,
	Low (1)		although nonnative and/or dis	turbance tolerant native spp
	None (0)		can also be present, and spe-	cies diversity moderate to
Sc. Cov	verage of invasive plants. Refer		moderately high, but generall	ywio presence of rare
	1 ORAM long form for list. Add		threatened or endangered sp	ρ
or dedu	ct points for coverage	high	A predominance of native speci	es, with nonnative spp
	Extensive >75% cover (-5)		and/or disturbance tolerant na	alive spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity	and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, threater	ed, or endangered sop
<u>L</u>	Nearly absent <5% cover (0)			
	Absent (1)	Mudflat and Open Wa		
6d Mic	retopography.	0	Absent <0.1ha (0.247 acres)	
Score a	Il present using 0 to 3 scale	1	Low 0.1 to <1ha (0.247 to 2.47	ogros)
<u>c</u>	Vegetated hummucks/tussucks	2	Moderale 1 to <4ha (2.47 to 9.	88 acres)
Ć.	Coarse woody debris > 15cm (6in)	3	High 4ha (9.88 acres) or more	
<u> </u>	Standing dead >25cm (10in) dbh			
- F7	Amphibian breeding pools	Microlopography Cov	/er Scale	
	<del></del>	0	Absent	
		1	Present very small amounts or	i more common
			of marginal quality	
		2	Present in moderate amounts, t	out not of highest
		_	quality or in small amounts of	
		3	Present in moderate or greater	AMA - 11-11-11-11-11-11-11-11-11-11-11-11-1
			and of highest quality	

23.5 GRAND TOTAL (max 100 pts)







SURVEY TYPE: Blu	e Creek W	ind Farm					No.: W093C				
		<del></del>			<del></del>		AM ID NO: N/A				
DATE: 09/17/2009		CLIENT	/Project Name: ]	Heartland	d Wind LLC	C./ Blue	e Creek Wind 1	Farm			
INVESTIGATORS: D.Wes	t, M. Nechvatal	State/(	COUNTY: Ohio/Pa	aulding		ROVER	FILE: R091709A	DW.cor	QUAD NAME: Latty		
Huc 12 Code: 04100007	0703	Towns	вния: Blue Creek		PHOTO NO.: 093C40W & 093C41E						
WETLAND QUALITY: LOW	N				LAND TYPE: Palustrine TYPE: Emergent						
·	PLANT SPE	CIES		S <sub>7</sub>	TRATUM		INDICATOR	$\overline{1}$	PERCENT COVER		
1. Scirpus atrovirens				H€	erbaceous		Obligate	1	40 %		
2. Leersia oryzoides				He	erbaceous		Obligate		40 %		
3. Carex sp.				He	erbaceous		Fac Wet		20 %		
4.								Ţ	%		
5.									%		
6.									<u>%</u>		
PERCENT OF DOMINANT SPECIES THAT ARE OBL, PACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 100											
Vegetation Remarks:											
Hydrology											
RECORDED DATA?			DESCRIBE:								
DEPTH OF SURFACE WAT	- 1	1)	<del></del>	DE	EPTH TO SATU	RATED S	iOIL: 0 (in)				
DEPTH TO FREE WATER I		ı)						· · · · · · · · · · · · · · · · · · ·			
PRIMARY WETLAND IND	ICATORS:				SECONDARY WETLAND INDICATORS:						
Inundated		Drift Lines			cal Soil Surve	-		-			
Drainage Patterns		Saturated Uppe		FA <sup>r</sup>	C Neutral Te	ast					
REMARKS: roadside dit	ich; linear wetla	nd, drainage for a	adj ag field to S								
				Sol	ILS				,		
Map Unit Name (Serie:	s and Phase): [	atty clay, 0 perce	ent slopes (flats)					DRAINA	GE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	j:	Fie	eld Observation	IS CONFIRM	4 MAPPED TY	PE. IP NO	), SOIL TYPE ENC	OUNTERED	?		
			PRO	FILE DE	ESCRIPTI	ON					
DEPTH (INCHES)	Horizo	in	MATRIX COLO			OTTLE UNSELL	COLOR . MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-2	А		10YR 5/2		T	5% 10YI	R4/6		Silt loam		
2-12+	В		10YR 5/1			45% 10Y	1		Silty Clay Loam		
Hydric Soil Indicator		Т	4					<del></del>			
Listed Hydi	ric		Gleyed					i			
Remarks:									i		
			WETLA	ND DE	TERMINA	ATION	1				
Hydrophytic Vegetat	ION PRESENT?	r'es		***************************************	INT WITHIN A		· · · · · · · · · · · · · · · · · · ·				
Wetland Hydrology					Wetland? 1						
Hydric Soils Present?	Yes										
NORMAL CIRCUMSTANC	:ES? Yes		SIGNIFICAN	ITLY DISTU	rbed: No		POTENTI	AL PROBLE	em Area? No		
D	ESCRIPTIC	N OF WETL	AND CROS	SING T	YPES AN	D WI	TLAND QU	JALITY	CRITERIA		
HIGH QUALITY WETL are characteristic of the s									pes – hydrologic and soil indicators served.		

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.



## ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek				WETLAND ID NO.: U093CA ASSOCIATED WETLAND ID NO: W093CA						
DATE: 09/17/2009	<del></del>		CLIENT/PROJECT N	NAME: Hear	<del> l</del>				-		
INVESTIGATORS: D.Wes	t, M. Nechvatal		STATE/COUNTY: (	Ohio/Pauldi	ing	g QUAD NAME: Latty					
Huc 12 Code: 04100007	0703		TOWNSHIP: Blue	Creek		Рното No.: 993C42E					
WETLAND QUALITY: N/A	A				LAND TYPE: N/A TYPE: Upland						
	PLANT SPE	CIES			STRATUM	1	NDICATOR	1	PERCENT COVER		
1. Trifolium pratense		Herbaceous		Fac Up -		30 %					
Poa pratensis     Taraxacum officinale					Herbaceous		Fac Up		50 %		
Taraxacum omemaie     4.					Herbaceous		Fac Up -	<u> </u>	20 % %		
5.				<del> </del>					<u>%</u>		
6.									%		
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL,	FACW, FACW+, F	ACW-, FAC-	, or FAC (exclui	DING FAC-):	0				
Vegetation Remarks:							,				
				HY	DROLOGY		_				
RECORDED DATA?			Dascru	BE:							
DEPTH OF SURFACE WAT	ter: N/.	A (in)			DEPTH TO SAT	URATED SOII	.: >16 (in)				
DEPTH TO FREE WATER	IN PIT: No	ne (in)							····		
PRIMARY WETLAND IND	ICATORS:				SECONDARY WETLAND INDICATORS:						
None											
	<del>-</del>		···								
Remarks:	· · · · ·						<del></del>				
<del></del>					Soils						
Map Unit Name (Serie	s and Phase):	Latty clay	, 0 percent slopes	(flats)		<del>' ' .</del>		DRAINAGE CLA	ss: Very poorly drained		
TAXONOMY (SUBGROUP)	):		FIELD OBSER	VATIONS CO	ONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?						
				Profili	DESCRIPT	ION					
DEPTH (INCHES)	Horizo	ON		X COLOR LL MOIST)		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
no soil pit dug	-		na soil	pit dug			į				
no soil pit dug											
210 00						•		***************************************			
Hydric Soil Indicator	RS:				L		<u>L</u>	*			
		T	<del> </del>		<u> </u>						
Remarks:					<b>!</b>						
		-	W	TTI AND	DETERMIN	ATION			<del>_</del> .		
Wynnowski Vinne	Description of the second	N/a				'	2 31-				
HYDROPHYTIC VEGETAT		140			G POINT WITHIN		OPI				
WEILAND HYDROLOGY			ISTI	HIS AN ISOL	ATED WEILAND?	IN/A					
Hydric Soils Present			<del></del>		_				· · · · · · · · · · · · · · · · · · ·		
NORMAL CIRCUMSTANC					DISTURBED: No			L PROBLEM ARI			
D	ESCRIPTIO	ON OF	WETLAND (	ROSSIN	G TYPES AL	AD MEL	land Qu	ALITY CRI	TERIA		
HIGH QUALITY WETI									ydrologic and soil indicators		

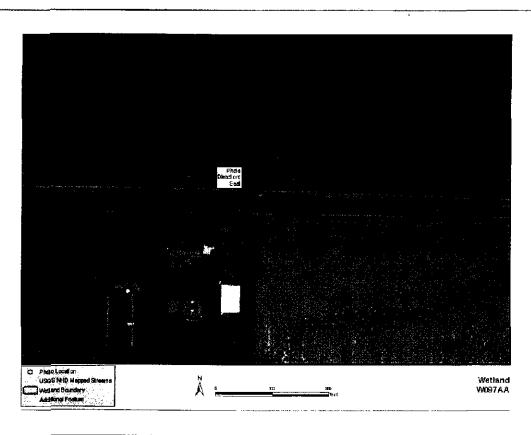
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

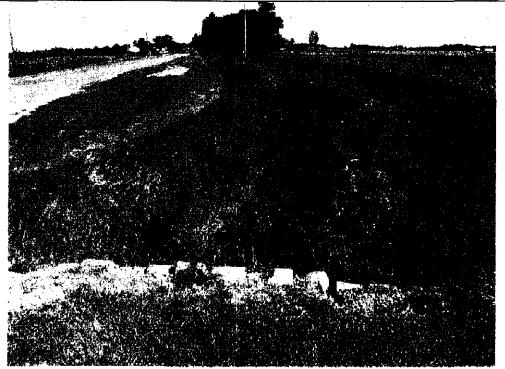
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

Site:		Rater(s):	and the second s	Date:
$\bigcirc$ 0	Metric 1. Wetland	Area (size)		
plac 6 pita subtotal	Select one size class and assign score  >50 acres (>20.2ha) (6 µh)  25 to <50 acres (4 to <10.1 to <20  10 to <25 acres (4 to <10.1 to <10 acres (1.2 to <4ha)  0.3 to <10 acres (0.12 to <1.2  0.7 to <0.3 acres (0.04 to <0  0.1 acres (0.04ha) (0 pts)	i. .2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		·
13	Metric 2. Upland	ouffers and su	rrounding land	use.
max 14 pts. subtreal	2a. Calculate average buffer width. S WIDE. Buffers average 50m MEDIUM. Buffers average 2 NARROW. Buffers average VERY NARROW. Buffers average 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW. Old field (>10 years),	elect only one and assign scont (1641) or more around wetten (25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around we verage <10m (<32ft) around we Select one or doubte check around forest, prairie, savennah, shrubland, young second grow dential, fenced pasture, park, o	a. Do not double check. d penmeter (/) und wetland perimeter (1) round wetland perimeter (1) itland perimeter (0) nd average. wildlife area, etc. (7) th furest. (5) onservation tillage, new fallow?	
Silis	Metric 3. Hydrolo			
max 30 dis. subtotaj	3a. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (tak 3c. Maximum water depth. Select onl >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (1)	apply.  e water (3)  o or stream) (5)  y one and assign score.  (2)	Part of wetland/upin Part of diparian or u  3d. Duration inundation/satu Semi- to permanen Regularly inundate Seasonally inundate Socoonally columbia	(1) ke and other human use (1) and (e.g. forest), complex (1) pland comider (1) ration. Score one or dbl check. tly inundated/saturated (4) d/saturated (3)
_	None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)			ormwater)
- 5/17,	Metric 4. Habitat	Alteration and	Development.	<u> </u>
manx 20 pts. sublokel	4a. Substitate disturbance. Score one None or none apparent (4) Recovering (2) Recovering (2) Recovering (2) Recovering (2) Recovering (2) Recovering (3) Recovering (4) Excellent (7) Yery good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Ar, Habitat alteration. Score one or de-	or double check and average.  one and assign score.		
i >	None or none apparent (9) Recovered (6) Recovering (3) Recont or no recovery (1)	Check all disturbances obse mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling remon herbaceous/aquatic sedimentation dredging farming nutrient enrichment	B

te:	Ra	iter(s):	Date:
2 subtreal this pa	30		
20	Metric 5. Special We	tlands.	
Opis subtotal	Check all that apply and score as indicated.		
	Bog (10)		
	Fer (10)		
	Old growth forest (10)		
	Mature forested wetland (5)		
	Lake Erie coastal/Iributary wetland-		
	Lake Erie coastal/Iributary welland-		5)
	Lake Plain Sand Prairies (Oak Ope	រាមម្ចន) (10)	
	Relict Wet Praires (10) Known occurrence state/lederal thr	rantanad or aprimanae	od consine (40)
	Significant migratory songbird/water	-	•
	Category 1 Wetland. See Question	_	•
0 0			
C -	Metric 6. Plant comm	nunities, ir	nterspersion, microtopography
20 prs. substitut	Ga. Welland Vegetation Communities.	Vegetation Comm	
	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of welland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Shrub		significant part but is of low quality
	O Forest  Mudifiats	2	Present and either comprises significant part of wetland's
	Open water		vegetation and is of moderate quality or comprises a small part and is of high quality
	( ) Other	3	Present and comprises significant part, or more, of welland
	fib horizontal (plan view) Interspersion		vegetation and is of high quality
	Select only one.		
	High (5)	Nerrative Descript	ion of Vogelation Quality
	Moderately high (4)	law	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbence tolerant native species
	Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants, Refer		moderately high, but generallywlo presence of rare
	to Table 1 ORAM long form for list, Add		threatened or endangered spp
	or deduct points for coverage	high	A predominance of native species, with normalive spp
	Extensive >75% cover (-5)	high	and/or disturbance tolerant native spp absent or virtually
	Extensive >75% cover (-5) Moderate 25-75% cover (-3)	high	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)	high	and/or disturbance tolerant native spp absent or virtually
	Extensive >75% cover (-5) Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)		and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)	Mudflet and Open	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangement spp.  Water Class Quality
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 ecole.  Vegetated hummucks/tussucks	Mudifiet and Open 0 1 2	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to < tha (0.247 to 2.47 acres)  Moderale 1 to <4ha (2.47 to 9.88 acres)
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris >15cm (6in)	Mudifiet and Open 0 1	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris > 15cm (6in)  C Standing dead >25cm (10in) dbh	Mudflat and Open  0 1 2 3	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.58 acres) or more
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris >15cm (6in)	Mudflat and Open  0 1 2 3 Microtopography (	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris > 15cm (6in)  C Standing dead >25cm (10in) dbh	Mudflat and Open  0 1 2 3	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more  Cover Scale  Absent
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris > 15cm (6in)  C Standing dead >25cm (10in) dbh	Mudflat and Open  0 1 2 3 Microtopography (	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more  Cover Scale  Absent  Present very small amounts or if more common
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris > 15cm (6in)  C Standing dead >25cm (10in) dbh	Mudflat and Open  0 1 2 3 Microtopography (	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High 4ha (9.88 acres) or more  Cover Scale  Absent
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris > 15cm (6in)  C Standing dead >25cm (10in) dbh	Mudflet and Open  0 1 2 3 Microtopography i	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1he (0.247 acres)  Low 0.1 to <1he (0.247 to 2.47 acres)  Moderate 1 to <4he (2.47 to 9.88 acres)  High 4he (9.58 acres) or more  Cover Scale  Absent  Present very small amounts or if more common of anarginal quality
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sparse 5-25% cover (-1)  Nearly absent <5% cover (0)  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scole.  Vegetated hummucks/tussucks  Coarse woody debris > 15cm (6in)  C Standing dead >25cm (10in) dbh	Mudflet and Open  0 1 2 3 Microtopography i	and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp.  Water Class Quality  Absent <0.1 to < 10.247 acres)  Low 0.1 to < 10.247 to 2.47 acres)  Moderate 1 to < 41a (2.47 to 9.88 acres)  High 41a (9.58 acres) or more  Cover Scale  Absent  Present very small amounts or if more common of anarginal quality  Present in moderate amounts, but not of highest

GRAND TOTAL (max 100 pts)

Rates to the most resem URAM Sitters Unknown to the method of the second 




Wetland W097AA



SURVEY TYPE: Blu	SURVEY TYPE: Blue Creek Wind Farm							No.: W097A	A			
			<u> </u>					REAM ID NO: 5098				
DATE: 09/17/2009			CUENT/PR	OJECT NAME:	Heartian	d Wind LL	C./ BI	ue Creek Wind F	arm			
INVESTIGATORS: Hook			STATE/COL	INTY: Ohio/1	Van Wert		Rov	er File: RAH09170	9A.cor	QUAD NAME: Scott		
Huc 12 Corts: 04100007	0703		Township	: Union		Рното No.: 0						
WETLAND QUALITY: LOV	٧		·			Vetland Type: Palustrine Subtype: Emergent						
	PLANT SPE	CIES			S	TRATUM		INDICATOR	T	PERCENT COVER		
1. Leersia ooryzoides						erbaceous		Obligate		50 %		
Scirpus fluviatilis     Typha latifolia						erbaceous erbaceous		Obligate Obligate	+	40 % 10 %		
Typna latirolla     Scirpus cyperinus						erbaceous erbaceous		Fac Wet +	+	10 %		
5.						· · · · · · ·				%		
6.					L					<u>%</u>		
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL,	FACW, FAC	W+, FACW-,	FAC+, OR	FAC (EXCLUI	ING F	AC-): 100				
VEGETATION REMARKS:	roadside ditch											
Hydrology												
RECORDED DATA? DESCRIBE:												
DEPTH OF SURFACE WAT	rer: 1 (ii	η)			Di	PTH TO SAT	JRATEI	<b>SOIL</b> : 0 (in)				
DEPTH TO FREE WATER I	N Ptt: 3 (ii	η)										
PRIMARY WETLAND IND	ICATORS:				SE	SECONDARY WETLAND INDICATORS:						
Inundated		Satur	ated Upper 1	2in	FA	C Neutral T	est					
Drainage Patterns												
REMARKS: roadside di	tch											
		<u> </u>			So	ILS						
Map Unit Name (Serie	S AND PHASE): ]	Hoytvill	e silty clay, 0	percent slop	es (flats)				DRAINA	AGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	):		FIELD	OBSERVATION	IS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTE				UNTEREL	o?		
				Pro	FILE DI	ESCRIPT	ION					
DEPTH (INCHES)	Horizo	)N	1	AATRIX COL		R MOTTLE COLOR				TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-12+	В	·		5B 2.5/1						Silt Loam		
HYDRIC SOIL INDICATOR	ts:											
Sulfidic Od	or		Listo	ed Hydric		<u> </u>		Gleyed				
Remarks:												
				WETLA	ND DE	TERMIN.	ATIC	ON				
HYDROPHYTIC VEGETAT	HYDROPHYTIC VEGETATION PRESENT? Yes Is This Sampling Point Within a Wetland? Yes											
WETLAND HYDROLOGY			····	Γ΄		WETLAND?						
Hydric Soils Present?	V				<u> </u>							
NORMAL CIRCUMSTANC				Significa	NTLY DISTU	RBED: No		POTENTIA	AL PROBL	em Area? No		
		N OF	WETLA		_		JD V	VETLAND QU	ALITY	CRITERIA		
HIGH QUALITY WETT										pes - hydrologic and soil indicators bserved.		

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good qualit

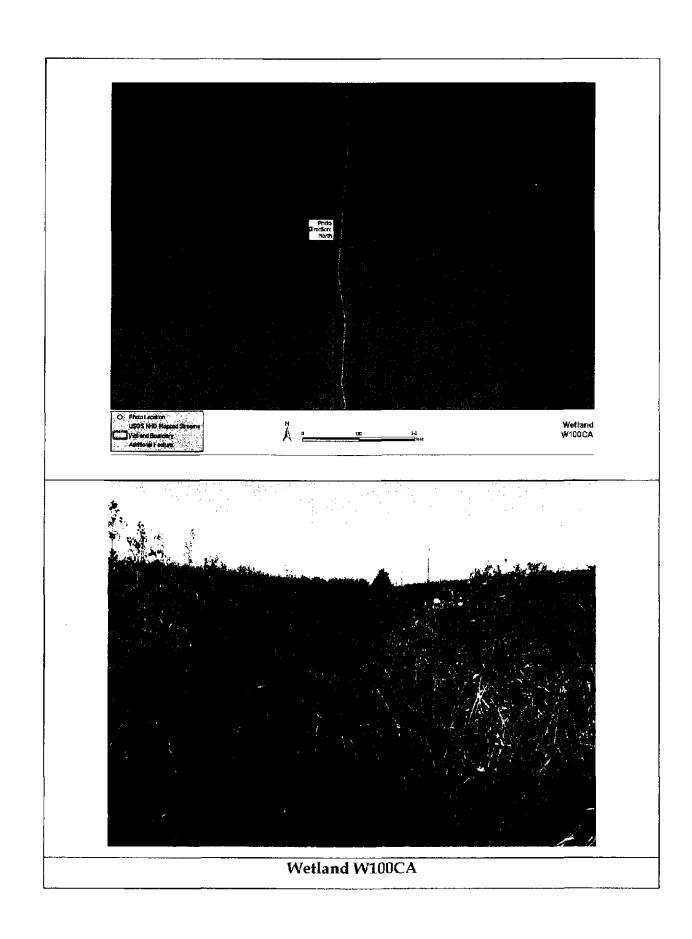
and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM	v, 5.0 Field	Form Quantitative Rating					
Site	: We	97AA/NOSSAA/WOZCA	Rater(s):	12 Hook		Date: 9	17/09
2	- 2	Metric 1. Wetland A	•	) <b>.</b>		·	•
mack 6	ote. eublotal	Select one size class and essign scon  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20  10 to <25 acres (4 to <10.1)  3 to <10 acres (1.2 to <4ha)  <0.3 to <3 acres (0.12 to <1.3  0.1 to <0.3 acres (0.04 to <0.4)  <0.1 acres (0.04ha) (0 pts)	5.2he) (5 pts) ta) (4 pts) (3 pts) the) (2pts)	67acre			
1 1	3	Metric 2. Upland but	ffers and	surroundin	g land use.		
max 14	pte. eubtotal	2a. Cálculate average buffer width. S WIDE, Buffers average 50r MEDIUM, Buffers average NARROW, Buffers average VERY NARROW, Buffers a 2b. Intensity of surrounding land use. VERY LOW. 2nd growth or LOW, Old field (>10 years) MODERATELY HIGH, Res TIGH, Urban, Industrial, op	n (164ft) or mone 25m to <50m (8 3 10m to <25m (8 verage <10m (4 Select one or older forest, pre , shrubland, you idential, fenced	e around wetland pering to <a href="#">2 to &lt;164 (f) around wetland to &lt;62 (f) around to &lt;62 (f) around to &lt;62 (f) around to &lt;62 (f) around to wetland average of the control of the contr</a>	neter (7) Itland perimeter (4) Wettend perimeter (1) perimeter (0) rege. Is area, etc. (7) st. (5) ration tillage, new felic	w field. (3)	
10	13	Metric 3. Hydrology	•				
max 30	pts. subtoted	<b></b>	epply. e water (3) e or stream) (5) ly one and assig	3d. Du n score.	nnectivity. Score all I  100 year floodpiel  Between stream& Part of wetland/up Part of riperlan or rration inundation/satu Semi- to permane Segularly inundation Seasonally inundation Seasonally satura	in (1)  sike and other hubiand (e.g. forest) upland corridor ( uration. Score or ontly inundeted/sed/seturated (3)	), complex (1 (1) ne or dbl chec aturated (4)
		None or none apparent (12) Recovering (3) Recent or no recovery (1)	Check all dist		point source (non: filling/grading road bed/RR track dredging other	•	
	20			ad Davalan			_
#tax 20	) pto. subtotal	None or none apparent (4) Bacovered (3) Recovering (2) Recant or no recovery (1)  4b. Habitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Eair (3) Reser to fair (2) Foor (1)  4c. Habitat alteration. Score one or development.	or double check and ouble check and	k and average.  score.  taverage.	ment.		
)	20	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutt	cutting sbris removal	shrub/sapling rem herbaceous/squal spekmentation dredging farming nutrient enrichmen	tic bad removal	

ORAM v. 5.0 Field Form Quantitative Rating			
Site: W697AA W055AA / W072 CA Rater(	s): 12 t	bor-	Date: 9 (7 09
authoral first page	<b>,</b>		
- 20 Metric 5. Special Wetland	ds.		
max 10 pts. subtotal Check all that apply and score as Indicated.			
Bog (10) Fen (10)			
Old growth forest (10)			
Mature forested watland (5) Lake Erle coaetal/tributary wetland-us	madriciad hwk	mlock (10)	
Lake Erie constal/tributary wetland-re			
Lake Plain Sand Prairies (Oak Open	ngs) (10)		
Relict Wet Prairies (10) Known occurrence state/federal three	staned or ende	noered species (16)	
Significant migratory songbird/water			
Category 1 Wetland. See Question 1	Cualitative Ra	ading (~10)	
2/ Metric 6. Plant communi	tles, Inte	erspersion, mi	crotopography.
max 20 pts. subtonit 8a. Wetland Vegetation Communities.		ommunity Cover Scale	
Score all present using 0 to 3 scale.  Aquatic bed	- 0		ha (0.2471 acres) contiguous area ises small part of wetland's
Emergent	•		derate quality, or comprises a
Shrub		algnificant part but is of	low quality
Forest Muditets	2	•	ises significant part of wetland's
Open water		part and is of high quali	derate quality or comprises a smail tv
Other	3	Present and comprises si	gnificant part, or more, of wetland's
6b. hortzontal (plan view) Interspersion.		vegetation and is of hig	h quality
Select only one. [ High (5)	Narrative De	scription of Vegetation Q	unlity
Moderately high(4)	low	Low spp diversity and/or p	oradominance of nonnative or
Moderate (3)		disturbence tolerant nat	
Moderately low (2) Lpw (1)	mod		component of the vegetation, for disturbance tolerant native spp
None (0)		_	d species diversity moderate to
6c. Coverage of investive plants. Refer			nerally w/o presence of rare
to Table 1 ORAM long form for list. Add or deduct points for coverage	high	threatened or endanger	ed spp species, with nonnative spp
Extensive >75% cover (-5)	165/15	E *	ant native spp absent or virtually
Moderate 25-75% cover (-3)		absent, and high app di	versity and often, but not always,
Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, th	restaned, or endangered spp
Absent (1)	Mudflat and	Open Water Class Qualit	v
6d- Microtopography.	0	Absent <0.1ha (0.247 ac	res)
Score ell present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to	
Vegetated hummwcks/tussucks Coarse woody debris >15cm (6in)	<u>2</u>	Moderate 1 to <4ha (2.4) High 4ha (9.88 acres) or r	
Standing dead >25cm (10in) dbh			_
Amphibian breeding pools		aphy Cover Scale	**************************************
	- 1	Absent Present very small amount	nts or if more common
	•	of marginal quality	ne et a mere willing
	2	Present in moderate amo	
	3	quality or in small amou Present in moderate or gr	
<del></del>		and of highest quality	
2 / GRAND TOTAL (max 100 pts)			

Refer to the most recent ORAM Score Calibration Report for the econing breakpoints between wetland categories at the following address: http://www.epe.state.ch.us/daw/401/401.html
last revised 1 February 2001 jjm



SURVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: W100CA ASSOCIATED STREAM ID NO: N/A				
DATE: 09/17/2009	09/17/2009 CLIENT/PROJECT NAME: Heartlan				nd Wind LLC./ Blue Creek Wind Farm				
INVESTIGATORS: Hook		STATE/COUNTY: Ohio/Van W					l.cor	QUAD NAME: Scott	
Huc 12 Code: 041090970	IP: Union	-	Рно	Рното No.: 0					
WETLAND QUALITY: LOW	r			WETLAND TYPE: Palustrine SUBTYPE: Emergent					
	PLANT SPE	CIES		STRATUM INDIC				PERCENT COVER	
1. Leersia ooryzoides		Herbaceous Obligate			10 %				
Scirpus fluviatilis     3.		<del></del>		Herbaceous Obligate			70 % %		
4.								<u>~</u> <u>%</u>	
5.							%		
6.								%	
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, FACW, FA	CW+, FACW-, FA	C+, or FAC (exci	uding F	AC-): 100			
VEGETATION REMARKS:	ditch					*			
			Н	YDROLOGY	,			***	
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WAT	ER: N/	A (in)		DEPTH TO SA	TURATE	9 SOIL: >16 (in)			
DEPTH TO FREE WATER II	N PIT: Nor	ne (in)							
PRIMARY WETLAND INDI	CATORS:		<del></del>	SECONDARY WETLAND INDICATORS:					
Saturated Upper 12in				FAC Neutral Test			<u> </u>		
Drainage Patterns				Oxi Root Channels			<u></u>		
REMARKS: ditch									
		·		Soils					
MAP UNIT NAME (SERIES	AND PHASE); ]	loytville silty clay	, 0 percent slopes (i	flats)		Þ	DRAINA	GECLASS: Very poorly drained	
TAXONOMY (SUBGROUP):		Fig	D Observations C	CONFIRM MAPPED	TYPE IF	No, Soil Type Encoun	NTERED	?	
			Profi	LE DESCRIP	TION				
DEPTH (INCHES)	Horizo	м (	MATRIX COLOR (MUNSELL MOIST)		MOTTLE COLOR (MUNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-4	A		10YR 4/2		10YR 4/6 10%		Silt Loam		
4+	В		10Y 4/1		10YR 4/6 20%		Clay Loam		
				F F	IUIK	4/62U% I			
HYDRIC SOIL INDICATORS:									
HYDRIC SOIL INDICATOR	5:		101 4/1		IUIK	4/620%			
HYDRIC SOIL INDICATOR Listed Hydr			Gleyed		IUIR	4/620%			
					IUTK	4/6 20%	<u> </u>		
Listed Hydr			Gleyed	D DETERMI			I		
Listed Hydr	ic	(es	Gleyed WETLAN	D DETERMI	NATIC	DN			
Listed Hydr Remarks:	ic ON Present?	(es	Gleyed  WETLAN  Is THIS SAMPL		NATIC NAWETI	DN			
Listed Hydr REMARKS: HYDROPHYTIC VEGETATI	ON PRESENT? YES	(es	Gleyed  WETLAN  Is THIS SAMPL	ING POINT WITH	NATIC NAWETI	DN			
Listed Hydr REMARKS:  HYDROPHYTIC VEGETATI WETLAND HYDROLOGY I	ic ION PRESENT? YES YESENT? YES	(es	WETLANI IS THIS SAMPL IS THIS AN ISC	ING POINT WITH	NATIC	DN LAND? Yes	PROBL	EM AREA? No	
Listed Hydr REMARKS:  HYDROPHYTIC VEGETATI WETLAND HYDROLOGY F HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANCE	ON PRESENT? YES YES ES? YES		WETLANI IS THIS SAMPL IS THIS AN ISC	ING POINT WITHI DLATED WETLAND Y DISTURBED: NO	NATIC	DN LAND? Yes		EM AREA? No	

are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation,

hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly

affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



## ROUTINE WEILAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue Creek						WETLAND ID No.: U100CA ASSOCIATED WETLAND ID NO: W100CA				
DATE: 09/17/2009 CLIENT/PROJECT NAME				ROJECT NAME: H	Heartland Wind LLC./ Blue Creek Wind Farm					
INVESTIGATORS: Hook STATE/COUNTY: Ohio/Van										
Huc 12 Code: 041000070703 Township: Uni				P: Union			<b>P</b> HO7	ro No.:		
					VETLAND TYPE: N/A					
PLANT SPECIES					ST	STRATUM INDICATOR PERCENT COVI			PERCENT COVER	
1. Ambrosia trifida					He	rbaceous	Fac 30 %			30 %
2. Apocynum cannabin	um								30 %	
3. Solidago canadensis				-	He	Herbaceous Fac Up			30 % %	
<u>4,</u> 5.							$\dashv$	<del> </del>		<u>%</u>
6.								_	1	_%
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, F	ACW, FA	CW+, FACW-, FA	\C+, or F	AC (EXCLUE	ING FA	AC-): 30		
VEGETATION REMARKS:										
				H	IYDRO	DLOGY				
RECORDED DATA?				DESCRIBE:						
DEPTH OF SURFACE WAT	rer; N/.	A (in)			DEI	тн то Ѕаті	JRATED	SOIL: >16 (in)		
Depth to Free Water i	N PIT: No	ne (in)								
PRIMARY WETLAND IND	ICATORS:				SEC	SECONDARY WETLAND INDICATORS:				
None	,									
								······································		
Remarks:										
					SOI	ILS				
Map Unit Name (Serie	s and Phase):	Hoytville	silty clay,	0 percent slopes					AINAGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP)	:		FIELE	OBSERVATIONS	TIONS CONFIRM MAPPED TYPE. IF No, SOIL TYPE ENCOUNTERED?					
				PROFI	LE DE	SCRIPT	ION			
Depth (Inches)	Horizo	N	MATRIX COLOR (MUNSELL MOIST)			MOTTLE COLOR (MUNSELL MOIST)		Texture, Concretions, Structure, etc.		
0-12+	A			2.5y 4/3				Silt Loam		
	<u> </u>					<u> </u>				
Hydric Soil Indicator	R8:									
		1						-		
Remarks:										
Wetland Determination										
HYDROPHYTIC VEGETATION PRESENT? No IS THIS SAMPLING POINT WITHIN A WEILAND? No										
WEILAND HYDROLOGY PRESENT? No IS THIS AN ISOLATED WEILAND? N/A  HYDRIC SOILS PRESENT? No										
				SIGNIFICANTI	y Distu	BED: No		POTENT	tal Pi	ROBLEM AREA? No
DESCRIPTION OF WETLAND CROSSING							ID W			<del></del>
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators										

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation,

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

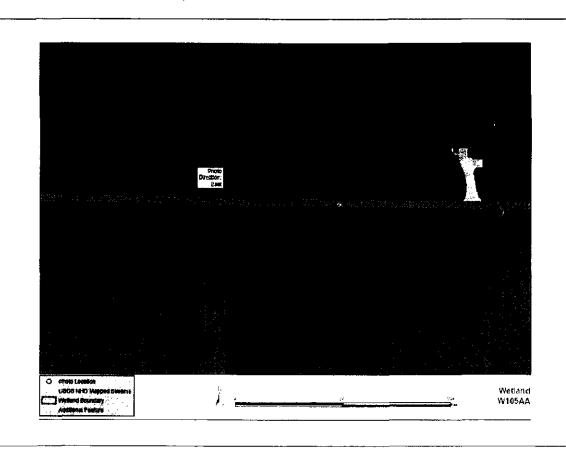
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

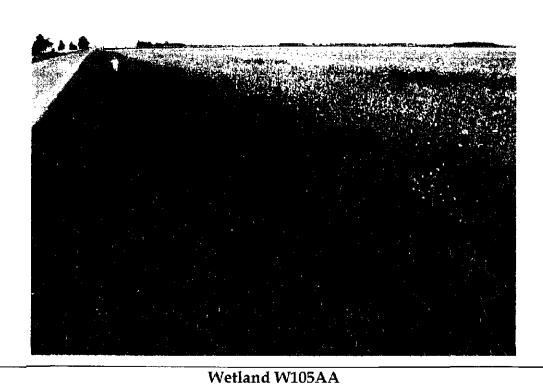
ORAM v.	5.0 Field Form Quantitative Rating		The land of the la
Site:	WIOOCA	Rater(s): PHONE	Date: 9/17/09
2 mics 6 pte.	Metric 1. Wetland Select one size class and assign >50 acres (>20.2ha) (6 26 to <50 acres (10.1 to 10 to <25 acres (4 to < 3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.02 to) (0.04 to) (0.04 to)	secore. 5 pts) to <20.2ha) (5 pts) =10.1ha) (4 pts) <4ha) (3 pts) to <1.2ha) (2pts) to <0.12ha) (1 pt)	
max 14 pls.	authorn  2a. Calculate average buffer wid  WIDE. Buffers average  MEDIUM. Buffers ave  NARROW. Buffers ave  VERY NARROW. Buf  2b. Intersity of surrounding land  VERY LOW. 2nd grow  LOW. Old field (>10 y  MODERATELY HIGH.	buffers and surrounding land the Select only one and assign score. Do not double to 50m (164ft) or more around wetland perimeter (7) trage 25m to <50m (82 to <164ft) around wetland perimeter (82 to <164ft) around wetland perimeter (82 to <82ft) around wetland perimeter (82 to <82ft) around wetland perimeter (82 to severage <10m (<32ft) around wetland perimeter (82 to severage). We are conserved to the conservation tilling all, open pasture, row cropping, mining, construction.	check. mater (4) nimeter (1) (0) . (7) (e, new fallow field. (3)
raes 30 pts.	=	that apply.  (5)  Surface water (3)  (c)  (c)  (d)  (d)  (d)  (e)  (d)  (e)  (d)  (e)  (d)  (e)  (e	Score all that apply, par floodplein (1) en stream/fake and other human use (1) f wetland/uptand (e.g. forest), complex (1) friparian or upland comidor (1) addition/saturation. Score one or diplication to permanently inundated/saturated (2) anally inundated (2) maily saturated in upper 30cm (12in) (1) pe.
max 20 pts.	Recovered (7) Recovering (3) Recent or no recovery  Metric 4. Habitat	Alteration and Development re one or double check and average. it (4)	
	Moderately good (4) Sair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score on Recovered (6) Recent or no recovery	t (9)  Check all disturbances observed  mowing shrub/ grazing herbar clearcutting sedim selective cutting woody debris removal farmin	

OPAMY	S O Floid	Form	Quantitative	Rating
UKAN T.		1-44111		TOTAL IN

Site:	WIOO CA	Rater(s):	72 HOOK	Date: 9/1/09
sub	17			
	Metric 5. Special V	Vetlands.		•
max 10 pts.	subtotal Check all that apply and score as in			
	Bog (10)			
	Fen (10) Old growth forest (10)			•
	Mature forested wetland (	•		
	Lake Erie coastal/tributary Lake Erie coastal/tributary		• =	
	Lake Plain Sand Prairies			
	Relict Wet Preiries (10)			
	Known accurrence state/i		endangerød species (10)	
	Category 1 Wetland. See		<b>*</b> - •	
3	20 Metric 6. Plant con	nmunities,	interspersion, r	nicrotopography.
max 20 pts.	subtotal 6a. Wetland Vegetation Communiti	es. <u>Veget</u> a	tion Community Cover Sca	
	Score all present using 0 to 3 scale.  Aquatic bed	0		<0.1ha (0.2471 acres) contiguous area imprises small part of wetland's
	Emergent	•		moderate quality, or comprises a
	Shrub		significant part but	is of low quality
•	Forest Mudflets	2	j*	imprises significant part of wetland's
	Open water		part and is of high o	moderate quality or comprises a small . Suality
	Other		Present and comprise	es significant part, or more, of wetland's
	6b. horizontal (plan view) interspen	sion	vegetation and is o	high quality
	Select only one. High (5)	Narrati	ve Description of Vegetation	on Quality
	Moderately high(4)	lo		/or predominance of nonnative or
	Moderate (3)	<del></del> :	disturbance toleran	
	Moderately low (2)	m		ant component of the vegetation, and/or disturbance tolerant native spp
	None (0)		_	, and species diversity moderate to
	6c. Coverage of invasive plants. R			it generally w/o presence of rare
	to Table 1 ORAM long form for list. or deduct points for coverage	Add hig	threstened or enda	ative species, with nonnative spp
	Extensive >75% cover (-5		and/or disturbance	tolerant native spp absent or virtually
	Moderate 25-75% cover (	-3)		p diversity and often, but not always,
	Sparse 5-25% cover (-1) Nearly absent <5% cover	(0)	i the presence of ran	a, threataned, or endangered app
	Absent (1)		t and Open Water Class Qu	iefity
	6d. Microtopography.			
	Score all present using 0 to 3 scale.  Vegetated hummucks/tus			
-	Coarse woody debris >15			
	Standing dead >25cm (10			
	Amphibian breeding pools		opography Cover Scale	
		1		nounts or if more common
			of marginal quality	
		2		amounts, but not of highest
				mounts of highest quality or greater amounts
	_		and of highest quali	
10	GRAND TOTAL (max 100 pts	) —		

Refer to the most recent ORAM Score Calibration Report for the ecoring breakpoints between welland categories at the following address: http://www.epa.state.ch.us/dew/401/401.html
last revised 1 February 2001 jjm





## CH2MHILL

# ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY)

SURVEY TYPE: Blu	e Creek Wind	Farm		WETLAND ID NO.: W105AA					
		<del></del>		ASSOCIATED STREAM ID NO: N/A					
DATE: 09/18/2009		CLIENT/PROJECT NA	мв: Heartla	and Wind LLC./ Blue Creek Wind Farm					
INVESTIGATORS: R Hoo	k	STATE/COUNTY: Oh	io/Van Wert		ROVER FILE: 0	QUAD NAME: Scott			
Huc12 Code: 04100007	0702	TOWNSHIF: Union		,	Рното No.: 0				
WETLAND QUALITY: Low	AT			ND TYPE: Palus E: Emergent	trine				
	PLANT SPECIES			STRATUM	INDICATOR	PERCENT COVER			
1. Scirpus atrovirens				Herbaceous	Obligate	95 %			
<u>2.</u> 3.						0 %			
4.						0 %			
5.						0 %			
6.			L	· · · · · · · · · · · · · · · · · · ·		0 %			
		BL, FACW, FACW+, FAC	W-, FAC+, 0	R FAC (EXCLUE	DING FAC-): 100				
Vegetation Remarks:	roadside ditch								
			Hydi	ROLOGY					
RECORDED DATA?		Describe:							
DEPTH OF SURFACE WAT	ren: N/A (in	)	t	DEPTH TO SATU	RATED SOIL: >16 (in)				
DEPTH TO FREE WATER I	N Pir: None (ir	)							
PRIMARY WETLAND IND	ICATORS:			SECONDARY WI	ETLAND INDICATORS:				
Water Marks									
REMARKS: roadside di	tch				_				
_			S	OILS		_			
MAP UNIT NAME (SERIE	s and Phase); Hoyt	ville silty clay, 0 percent s	slopes (flats)			DRAINAGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP	):	FIELD OBSERVA	TIONS CONFI	RM MAPPED TY	PE. IF NO, SOIL TYPE ENCO	PUNTERED?			
		P	ROFILE <b>D</b>	DESCRIPTI	ON	·			
DEPTH (INCHES)	Horizon	MATRIX ( (MUNSELL			IOTTLE COLOR UNSELL MOIST)	TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-9	Α	5Y 3/	′1		7.5YR 4/4 5%	Silt Loam			
9+	В	5GY 2.	5/2			Silt Loam			
Hydric Soil Indicator									
Listed Hyd	ric	Gleyed							
Remarks:					•				
		WET	LAND D	ETERMIN	ATION				
HYDROPHYTIC VEGETATION PRESENT? Yes Is This Sampling Point Within a Wetland? Yes									
WEILAND HYDROLOGY PRESENT? Yes IS THIS AN ISOLATED WEILAND? No									
Hydric Soils Present? Yes									
Normal Circumstance	Es? Yes	Signif	ICANTLY DIST	TURBED: No	POTENTI	al Problem Area? No			
		OF WETLAND CR	OSSING	Types an	ID WETLAND QU	ALITY CRITERIA			
HIGH OUALITY WETE	AND: no indication	of stress or disturbance i	n wetland or	adiacent area -	- diverse and mature vers	tation types – hydrologic and soil indicators			
			wrant the VI						

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field Fo	orm Quantitative Rating			
Site: Wio	SAA	Rater(s):	RHOOK	Date: 9 /20/09
mex 6 pts. subtotel	Metric 1. Wetland / Select one size class and sesign so	ore.	·	
	>50 acres (>20.2ha) (6 pt 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04ha) (0 pts	20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)	0.32	
12	Metric 2. Upland be	uffers and	surrounding lar	nd use.
max 14 pts. subfotal	2a. Calculate average buffer width.  WIDE. Buffers average 5  MEDIUM. Buffers average NARROW. Did field (>10 year	Select only one at 0m (184ft) or more e 25m to <50m (62 ge 10m to <25m ( s average <10m (< e. Select one or of or older forest, prains), shrubland, your esidential, fenced;	nd assign score. Do not doub mround wetland perimeter (7) to <164R) around wetland pe 32R to <62R) around wetland p 32R) around wetland perimete louble check and average. irle, savannah, wildlife area, et ag second growth forest. (5) sasture, park, conservation tille	te check.  rimeter (4)  perimeter (1)  r (0)  tc. (7)  age, new fallow field. (3)
10 12	Metric 3. Hydrolog	y.		
ment 30 pts. subtotal	3a. Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surf Perennial surface water (1) 3c. Maximum water depth. Select (1) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	face water (3) alte or stream) (5) only one and assign n) (2)	3d. Duration in score.	ty. Score all that apply. year floodplain (1) year floodplain (1) year stream/lake and other human use (1) of watiand/upland (e.g. forest), complex (1) of riparlan or upland corridor (1) undation/saturation. Score one or dbi check it to permanently inundated/saturated (4) ularly inundated/eaturated (3) sonally inundated (2) sonally saturated in upper 30cm (12in) (1)
	3e. Modifications to natural hydrolo  None or none apparent (1  Recovered (7)  Recovering (3)		abances observed point	age. t source (nonstormweter) g/grading
	Recent or no recovery (1)	dike weir stormwai	dred	¥ ¥
7 19	Metric 4. Habitat A	Iteration a	nd Developmen	t.
must 20 pts. attributed	4a. Substrate disturbance. Score of None or none apparent (4 Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Eair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or	ne or double check ) nly one and assign r do <u>uble check and</u>	c and average, score.	
19	None or none apparent (9) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutt	ing sedil cutting tired shris removal farm	

Site:	WIOSAA	Rater(s):	P. Hook	Date: 9/20/09
	Metric 5. Special  Metric 5. Special  Check all that apply and score as  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland  Lake Erie coastal/tribute  Lake Erie coastal/tribute	indicated. 3 (5) ary wetland-unrestrict ary wetland-restricted	hydrology (5)	
	Lake Plain Sand Prairie Relict Wet Prairies (10) Known occurrence state Significant migratory so Category 1 Wetland. S	e/federal threatened ongoird/water fowl hab	r endangered species (10 itat or usage (10)	)
2			•	, microtopography.
mex 20 pts.	subtotal 6a. Wetland Vegetation Commun		ation Community Cover	
	Score all present using 0 to 3 scal	********		ses <0.1ha (0.2471 acres) configuous area
	Aquatic bed    Emergent			or comprises small part of wedand's is of moderate quality, or comprises a
	Shrub			but is of low quality
	Forest			or comprises significant part of wetland's
	Mudflats		E .	is of moderate quality or comprises a small
	Open water		part and is of hi	
	Other			prises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspo	ersion.	vegetation and	is of high quality
	Select only one.	N		tudinu Analise
	High (5) Moderately high(4)		tive Description of Veget w Low spp diversity	and/or predominance of nonnative or
	Moderate (3)	•		erant native species
	Moderately low (2)	n		minant component of the vegetation,
	Low (1)		_	tive and/or disturbance tolerant native spp
	None (0)			sent, and species diversity moderate to
	6c. Coverage of invasive plants.			n, but generally w/o presence of rare
	to Table 1 ORAM long form for list		threatened or e	
	or deduct points for coverage Extensive >75% cover (		- , ·	of native species, with nonnetive spp nce tolerant native spp absent or virtually
	Moderate 25-75% cover	• •		h spp diversity and often, but not always,
	Sparse 5-25% cover (-1		-	rare, threatened, or endangered spp
	Nearly absent <5% cov	er (0)		
	Absent (1)	Mudi	at and Open Water Class	
	6d. Microtopography.		0 Absent <0.1ha (0	
	Score all present using 0 to 3 scal			0.247 to 2.47 acres)
	Vegetated hummucks/tr Coarse woody debris > '		2   Moderate 1 to <4 3   High 4ha (9.88 ac	iha (2.47 to 9.88 acres)
	Standing dead >25cm (	· · · —	A [1 m/iii 4448 (2.00 80	AGG W HIME
	Amphibian breading po	-	topography Cover Scale	•
			) Absent	
				Il amounts or if more common
			of morning) and	lia

2] GRAND TOTAL (max 100 pts)

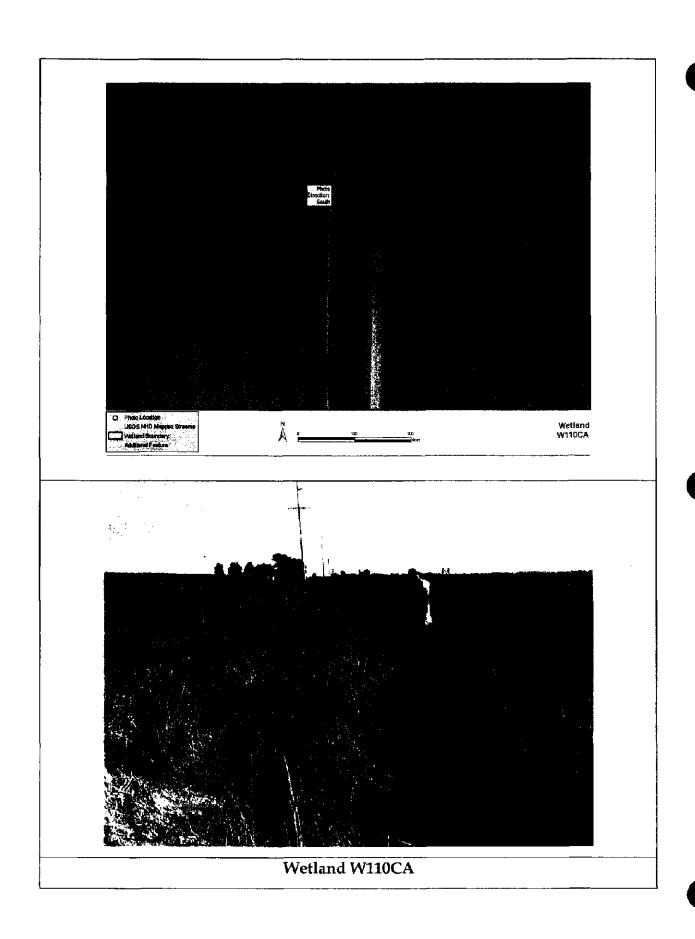
Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epe.etate.oh.us/daw/401/401.html

3

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

and of highest quality





SURVEY TYPE: Blu	e Creek Win	d Farm			WETLAND ID No.: W110CA				
					Associat	ED STR	EAM ID NO: N/A		
DATE: 09/18/2009		CLIENT/Pr	ROJECT NAME:	Heartla	nd Wind LL	C./ Bli	ue Creek Wind Far	m	
INVESTIGATORS: Hook		STATE/CO	UNTY: Ohio/	Van Wert	;	Rovi	er File: RAH091809A	A.COT	QUAD NAME: Scott
Huc 12 Code: 04100007	0703	Townshi	TOWNSHIP: Union PHOTO No.:						
WETLAND QUALITY: Lot		NO TYPE: Palus E: Emergent	trine						
	PLANT SPECT	es			STRATUM		INDICATOR		PERCENT COVER
1. Leersia cryzoides					Herbaceous		Obligate		60 %
2. Scirpus cyperinus					Herbaceous		Obligate		10 %
3. Typha angustifolia					Herbaceous		Obligate		20 %
4.									%
5. 6.		<del></del>	···						<u>%</u> %
				<u> </u>					
PERCENT OF DOMINANT	SPECIES THAT ARE	OBL, FACW, FA	CW+, FACW-,	FAC+, o	R FAC (EXCLUI	ING FA	AC-): 100		
VEGETATION REMARKS:	ditch								
				HYD	ROLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WAY	ter: N/A	in)		l	DEPTH TO SATI	RATED	Soil: >16 (in)	, <del></del>	
DEPTH TO FREE WATER	in Prr. None	(in)							
PRIMARY WETLAND IND	ICATORS:				SECONDARY W	ETLAND	INDICATORS:		
Drift Lines				1	Local Soil Surv	ey		<u>L</u> _	
Water Marks					FAC Neutral T	est		Ι	
REMARKS: ditch									_
				S	OILS			_	
Map Unit Name (Serie	s and Phase): Ho	ytville silty clay,	0 percent slop	es (flats)				RAINA	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	):	Field	OBSERVATION	NS CONFI	RM MAPPED TY	PE. IP N	NO, SOIL TYPE ENCOUR	TEREI	o?
			Pro	FILE I	DESCRIPT	ON	_		
Depth (Inches)	Horizon		MATRIX COL IUNSELL MO				E COLOR LL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-2	A		10YR 5/2						Silty Clay Loam
2-8	В		10YR 4/1			7.5YR 5	5/630%		Clay Loam
Rock Refusal									
HYDRIC SOIL INDICATOR	RS:				•				
Listed Hyd	гіс		Gleyed					$\mathbb{I}$	
Remarks;	_		<u> </u>						
			WETLA	ND D	ETERMIN.	ATIO			
HYDROPHYTIC VEGETAT	TION PRESENT? Yes	5	1		OINT WITHIN				
WETLAND HYDROLOGY			7		DWetland?				
HYDRIC SOILS PRESENT		7							
NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: NO POTENTIAL PROBLEM AREA? NO									
		OE SATERY				III) TA			······································
	ESCRIPTION	OF WELLA	ND CKOS	SING	1 YPES AN	אעו	ETLAND QUA	TTT )	CRITERIA
HIGH QUALITY WET	LAND: no indicati	on of stress or dis	turbance in w	etland or	adjacent area	- diver	se and mature vegeta	tion ty	pes - hydrologic and soil indicators

are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

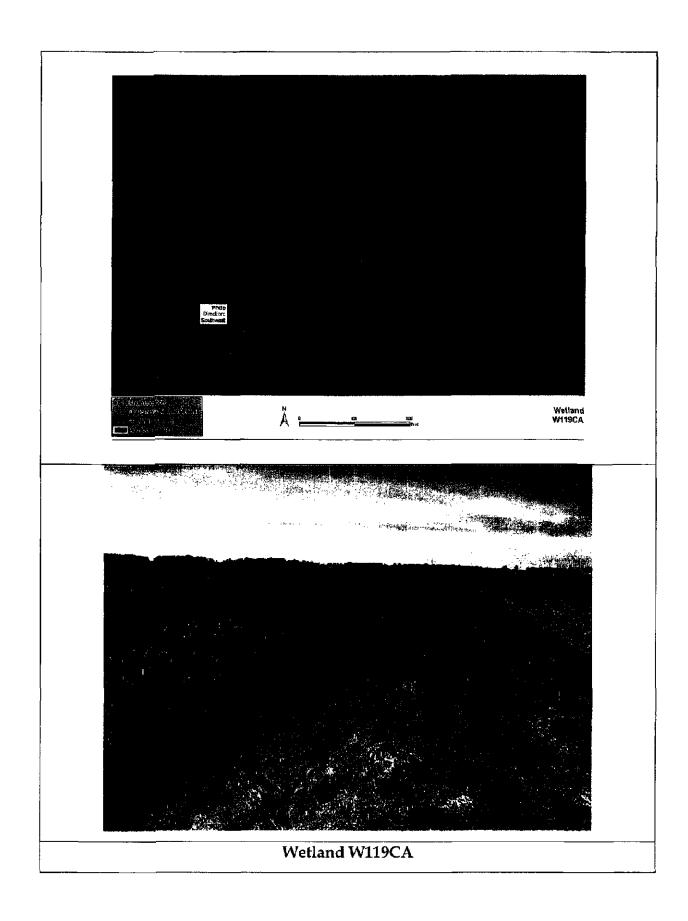
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

	ORAM v. 5	5.0 Field F	orm Quant	Itative Rating						
	Site:	WE	MCE	3 WINCA	Rate	r(s): Ellow	ملاس		Date: q	17/09
	2	2	Metri	c 1. Wetland	l <b>Are</b> a	(size).				•
	mex & ptn.	subtotal		e size class and assign >50 acres (>20.2ha) (6 25 to <50 acres (10.1 t 10 to <25 acres (4 to < 3 to <10 acres (1.2 to - 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0	pts) o <20.2ha) 10.1ha) (4 ; 4ha) (3 pts o <1.2ha) (2 to <0.12ha	ris) ) pts)	2.30	Lever		
	max 14 pts.	3 subtotal	2a. Calcu	c 2. Upland  tate average buffer wid WIDE. Buffers averag MEDIUM. Buffers ave NARROW. Buffers ave VERY NARROW. Buf sity of surrounding land VERY LOW. 2nd grow LOW. Old field (>10 y MODERATELY HIGH. HIGH. Urban, Industria	th. Selectice 50m (154) rage 25m to srage 10m lers average use. Selecth or older seas), shrub Residentia	only one and assign it) or more around to 1<50m (82 to <164 to <25m (32ft to <i 2&lt;10m (&lt;32ft) around or one or double ch forest, prairie, sava land, young secon I, fenced pasture, ;</i 	n score. Do n wettand perim ft) around wet 22ft) around w und wettand p eck and aven nnah, wildlife d growth fores park, conserve	of double check. leter (7) litend perimeter (4) lettand perimeter (1) lettand perimeter (1) lettand perimeter (7) lettand perimeter (7) lettand perimeter (7) lettand perimeter (7) lettand perimeter (8) lettand perimeter (9) lettand perimeter		
)	rmax 30 pts.	estional	3a. Sour	c 3. Hydrolo ces of Water. Score all High pH groundwater (3) Precipitation (1) Seasonal/Intermittent a Perennial surface water mum water depth. Sele >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27 <0.4m (<15.7in) (1) fications to natural hydrone or none apparen	that apply.  5)  curface water (lake or stot only one .6in) (2)  ologic regim	ream) (5) and assign score. ne. Score one or d ok gil disturbances	3d. Du	· 	in (1) lake and other pland (e.g. fore r upland confdouration. Score ently inundated ted/seturated (3 lated (2) sted in upper 3	st), complex (1 or (1) one or dbl chec /saturated (4) 3)
	5 max 20 pts.	18 subsectabl	Metri 4a. Subs	Recovered (7) Recovering (3) Recent or no recovery  IC 4. Habitat  Irrate disturbence. Scor None or none apparent Recovered (3) Recent or no recovery lat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) lat alteration. Score on	Altera e one or do t (4) t only one a	titich title dike weir stormwater input  tion and D uble check and ave nd assign score.	evelopi graga.	point source (non filling/grading road bed/RR trackredging other	•	
)		18	]	None or none apparen Bacovered (6) Recovering (3) Recent or no recovery	(9) Che	check and average ck all disturbances mowing grazing clearcutting selective cutting woody debris rem toxic politytants	beviesdo	shrub/sapiing ren herbaceous/aqua sedimentation Gredging farming nutrient enrichme	itic bed remova	

ORAM v. 5.0 Field Form Quantitative Rating			
Site: WELMCB WIOCA Rater	s): 12 (	HOOK	Date: 9 17 09
18  Metric 5. Special Wetlan		·	
	as.		
Check all that apply and soore as indicated.  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-u Lake Plain Sand Prairies (Oak Open Relict Wet Prairies (10) Known occurrence state/federal thre Significant migratory songbird/water Category 1 Wetland. See Question	estricted hydrok lings) (10) estened or ender fowl hebitet or u	ogy (5) ngered species (10) usage (10)	
1 19 Metric 6. Plant communi	-	-	opography.
mex 20 pts. subtonal Sa. Wetland Vegetation Communities.		Community Cover Scale Absent or comprises <0.1he (0.2)	471 complements area
Score all present using 0 to 3 scale.  Aquatic bed	- 0	Present or comprises <0. The (0.2	
Emergent		vegetation and is of moderate	•
Shrub		significant part but is of low qui	
Forest Mudflets	2	Present and either comprises sig yegatation and is of moderate	•
Open weiter	•	part and is of high quality	imency or comprises a small
Other	3	Present and comprises significan	it part, or more, of wetland's
6b. horizontal (plan view) interspersion.		vegetation and is of high qualit	y
Select only one.			
High (5) Moderately high(4)	Narrative De	scription of Vacetation Quality  Low spp diversity and/or predom	Income of population of
Moderate (3)	N.W	disturbance tolerant native ape	
Moderately low (2)	mod	Native spp are dominent compor	
Low (1)		although nonnative and/or dist.	
None (0)		can also be present, and speci	
6c. Coverage of investve plants. Refer to Table 1 ORAM long form for list. Add		moderately high, but generally threatened or endangered app	Nucl breaerios of usus
or deduct points for coverage	high	A predominance of native specie	s, with nonnative spp
Extensive >75% cover (-5)		and/or disturbance tolerant nati	
Moderate 25-75% cover (-3)		absent, and high spp diversity (	
Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatene	O. Or anuanuered spp
Absent (1)	Mudflat and	Open Water Class Quality	
6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 a	
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	2 3	Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	s acres)
Standing dead >25cm (10in) dbh		11 1121 -114 (0.00 0000) 01 11045	<del></del>
Amphibian breeding pools	Microtopogr	aphy Cover Scale	
<u>—</u>	0_	Absent	
	1	Present very small amounts or if	mate common
	2	of marginal quality Present in moderate amounts, bu	rt not of highest
	<del>-</del>	quality or in small amounts of h	<del>-</del>
	3	Present in moderate or greater a	
A COAND TOTAL (		and of highest quality	
( GRAND TOTAL (max 100 pts)			

Refer to the stock recent ORAM Score Calibration Report for the scoring investpoints between wellend categories at the following address: http://www.eps.atate.oh.us/cless/401/401.html





SURVEY TYPE: Blu	SURVEY TYPE: Blue Creek Wind Farm						WETLAND ID NO.: W119CA				
						ASSOCIATED STREAM ID NO: N/A					
DATE: 09/19/2009			CUENT/PR	OJECT NAME: I	Heartland	and Wind LLC./ Blue Creek Wind Farm					
INVESTIGATORS: Hook			STATE/COL	INTY: Ohio/V	an Wert		ROVER FILE: RAH090919B.co		.9B.cor	QUAD NAME: Scott	
Huc 12 Code: 04100007	0702		TOWNSHIP	Union			Рното	0 No.; w119ca			
WETLAND QUALITY: Me	dium	<del></del>				Type: Palus Emergent	trine				
	PLANT SPE	CIES			Sı	TRATUM		INDICATOR		PERCENT COVER	
1. Scirpus fluviatilis	<del></del>	***			He	rbaceous		Obligate		60 %	
2. Typha latifolia					He	rbaceous		Obligate		10 %	
3. Leersia oryzoides						rbaceous		Obligate		20 %	
4. Polygonum sp						rbaceous		Fac Wet		20 %	
5. Scirpus validus 6.						rbaceous	-+	Obligate	+	10 % %	
									L		
PERCENT OF DOMINANT VEGETATION REMARKS:		RE OBL, I	ACW, FAC	:W+, FACW-, 1	FAC+, OR I	FAC (EXCLUI	ING FA	C-): 100			
			-		Hydro	DLOGY					
RECORDED DATA?			]	DESCRIBE:							
DEPTH OF SURFACE WAT	ren: N/A	A (in)			DE	ртн то Ѕаті	RATED!	SOIL: >16 (in)			
DEPTH TO FREE WATER IN PIT: None (in)											
PRIMARY WETLAND IND	ICATORS:				SEC	CONDARYW	ETLAND	INDICATORS:			
Drainage Pattern					FA	C Neutral T	es				
Drift Lines					Loc	al Soil Surv	ev				
REMARKS: ag drainage				· · · · · · · · · · · · · · · · · · ·			-1	· · · ·			
ntmakes. ag utamage											
					So	ILS					
Map Unit Name (Serie	s and Phase):	Hoytville	silty clay, (	percent slopes	s (flats)				DRAIN	AGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP)	);		FIELD	OBSERVATIONS	5 CONFIRM	MAPPED TY	PE. IF N	o, Soil Type Enc	OUNTERE	5?	
				Proi	FILE DE	SCRIPT	ON				
DEPTH (INCHES)	Horizo	Ж		AATRIX COLO IUNSELL MOI		1		COLOR L MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-3	В			25Y 4/2			10YR 4/	610%		Silt Loam	
4+	С			10YR 4/1			10YR 4/	/3 20%		Clay Loam	
HYDRIC SOIL INDICATOR	ts:										
Listed Hyd	ric		C	Gleyed							
Remarks:											
				WETLA	ND DE	TERMIN.	ATIO	N			
HYDROPHYTIC VEGETAT	ION PRESENT?	Yes		Is This Sam	PLING POI	NT WITHIN	WETLA	ND? Yes			
WETLAND HYDROLOGY				Is This An I							
HYDRIC SOILS PRESENT?											
NORMAL CIRCUMSTANC		·-		SIGNIFICANT	TLY DISTU	RBED: No		POTENTI	AL PROBI	EM AREA? No	
		N OF	WETLA				DW	ETLAND QU			
	AND: no indic	ation of s	tress or dist	urbance in we	tland or ac	ljacent area	- divers	e and mature veg	etation ty	pes - hydrologic and soil indicators	

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

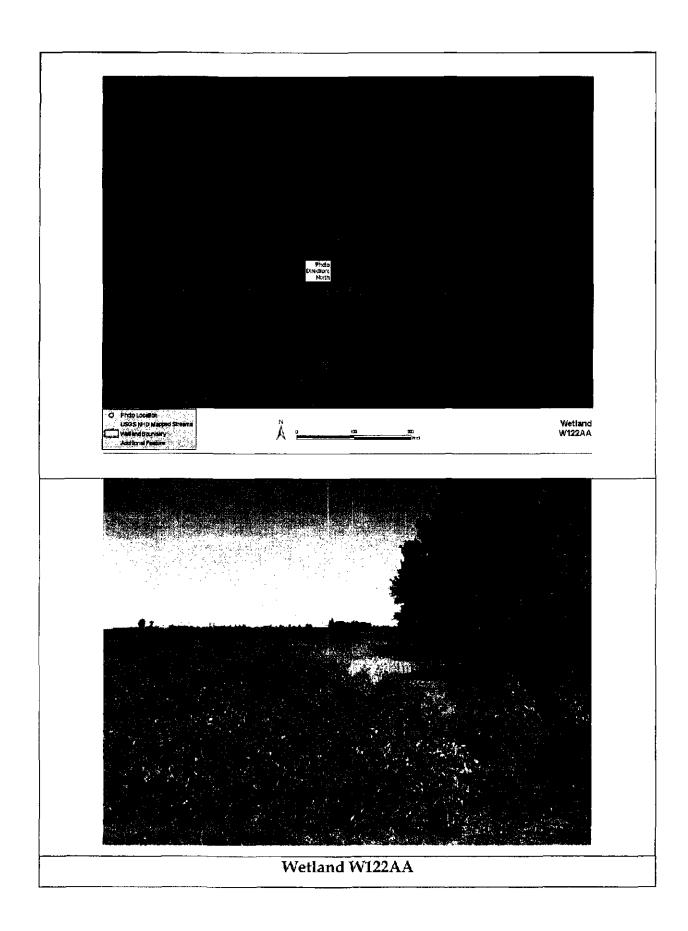
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field Fo	orm Quantitative Rating		i
Site: W (	9.CA	Rater(s): 2 Hook	Date: 9/19/09
33	Metric 1. Wetland	∖rea (size).	· · ·
manx 6 plus. authorited	Select one size class and assign acces (>20.2ha) (6 ptr 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10. 3 to <10 acres (1.2 to <4h 0.3 to <3 acres (0.12 to < 0.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to )	s) 20.2ha) (5 pts) 1ha) (4 pts) a) (3 pts) 1.2ha) (2pts) <0.12ha) (1 pt)	sour.
enex 14 pte. subtotal	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land us VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. Re	Select only one and assign score. Om (184ft) or more around wetland   e 25m to <50m (82 to <164ft) arounge 10m to <25m (32ft to <82ft) arounge 10m to <25m (32ft to <82ft) aroung average <10m (<32ft) around wetlage. Select one or double check and or older forest, prairie, sevannah, wis), shrubland, young second growth	Do not double check. perimeter (7) d wetland perimeter (4) and wetland perimeter (1) and perimeter (0) average. idifie area, etc. (7) forest. (5) servation illiage, new fallow field. (3)
11 15	Metric 3. Hydrology	<b>y</b> .	
опци 30 pts. aubtotel	3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surf. 3c. Maximum water depth. Select (3) >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) 40.4m (<15.7in) (1) 3e. Modifications to natural hydrologe.	ace water (3) ake or stream) (5) 3d. only one and assign score.	Connectivity. Score all that apply.  100 year floodplain (1) Between stream/take and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riperian or upland corridor (1) Duration inundation/saturation. Score one or dbl ch Semi- to permanently inundated/saturated (4) Pregularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cre (12in) (1) and swerage.
	None or none apparent (1)   Gecovered (7)   Recovering (3)   Recent or no recovery (1)	2) Check all disturbances observe ditch	
8 23	Metric 4. Habitat A	Iteration and Devel	opment.
max 20 pts. aubtotal	4s. Substrate disturbance. Score o  None or none apparent (4) Becovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select or Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat atteration. Score one or	ne or double check and average.  This one and assign score.  The double check and average.	
23	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing	shrub/sapling removal herbaceous/aqualic bed removal sedimentation Gredging farming nutrient enrichment

ORAM v.	5.0	Field Form	Quantitative	Ratino
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Site: W119	CA Rater(s	s): 巴从	00/	Date: 9/19/09
23	·			•
eubtotal first page				
120	atula E. Charles Watton	do		
	etric 5. Special Wetland	us.	•	•
ment 10 pts. subtotal Chie	ck all that apply and score as indicated.  Bog (10)			
	Fen (10)			
	Old growth forest (10)			
	Mature forested wetland (5)			
	Lake Erie coastal/tributary wetland-us Lake Erie coastal/tributary wetland-re	-	<del></del>	
•	Lake Plain Sand Prairies (Oak Open	•	ody (p)	
	Relict Wet Prairies (10)	miles) (res		
	Known occurrence state/federal three	abened or enda	ngered species (10)	• .
	Significant migratory songbird/water		•	
	Category 1 Wetland. See Question 1	I Qualitative Ra	sting (-10)	
2 12/14	atula C. Diant communicati	48 1_4.		<del> </del>
	etric 6. Plant communi	=	· ·	opograpny.
	Wetland Vegetation Communities.		Community Cover Scale	
Soc	ore all present using 0 to 3 scale.  Aquatic bed	1	Absent or comprises <0.1ha (0.2 Present and either comprises sm	
	t Emergent	•	vegetation and is of moderate	-
	Shrub		significant part but is of low qua	
	Forest	2	Present and either comprises sig	nificant part of wetland's
	Mudilets		vegetation and is of moderate of	quality or comprises a small
	Open water		part and is of high quality	
eh.	Otherhorizontal (plan view) interspersion.	3	Present and comprises significant vegetation and is of high quality	•
	ect only one.	***,	16 Committee of the Com	
	High (5)	Norretive De	scription of Vegetation Quality	
,	Moderately high(4)	low	Low spp diversity and/or predomi	nance of nonnetive or
	Moderate (3)		disturbance tolerant native spe-	
	Moderately low (2) Low (1)	mod	Native spp are dominant compon although nonnative and/or distu	
	None (0)		can also be present, and specie	• •
6g.	Coverage of invasive plants. Refer		moderately high, but generally	• • • • • • • • • • • • • • • • • • • •
to 1	Table 1 ORAM long form for list. Add		threatened or endangered app	<u> </u>
· or o	leduct points for coverage	high	A predominance of native specie	-,, ,,
	Extensive >75% cover (-5)  Moderate 25-75% cover (-3)		and/or disturbance tolerant nati	
	Sparse 5-25% cover (-1)		absent, and high app diversity a the presence of rare, threatene	
	Nearly absent <5% cover (0)		1 410 Maccasco Of Ferror, Butchicano	a, or or the March Sol
	Absent (1)	Mudflet and	Open Water Class Quality	
	Microtopography.	0	Absent <0.1ha (0.247 acrea)	
\$¢	ore all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 ac	
	Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)		Moderate 1 to <4hs (2.47 to 9.8) High 4hs (9.88 scres) or more	1 GCT9\$}
	Standing dead >25cm (10in) dish		1184(1-7))a (0.00 80(85) & 1160 8	
	Amphibian breeding pools	Microtopogu	sphy Cover Scale	
		0	Absent	
		1	Present very small amounts or if	more common
			of marginal quality	4
		2	Present in moderate amounts, bu quality or in small amounts of h	
		3	Present in moderate or greater at	
			and of highest quality	
76 GRAND	TOTAL (max 100 pts)			<del></del>

Refer to the most recent CRAM Score Calibration Report for the acceleration between wetlend categories at the following address: http://www.epe.state.ch.ue/daw/461/401.html last revised 1 February 2001 jjm





SURVEY TYPE: Blue	SURVEY TYPE: Blue Creek Wind Farm						WETLAND ID No.: W122AA					
					ASSOCIATED STREAM ID NO: N/A							
DATE: 09/19/2009		CLIENT	Project Name:	: Heartlan	land Wind LLC./ Blue Creek Wind Farm							
INVESTIGATORS: Hook		STATE	COUNTY: Ohio/	Van Wert		ROVER FILE: RAH0909198.		19B.cor	QUAD NAME: Scott			
HUC 12 CODE: 041000070702 TOWNSHIP: Union						₽но	то No.: 122a1					
WETLAND QUALITY: Low		#			O TYPE: Palus Emergent	strine						
	PLANT SPEC	CIES		S	TRATUM		INDICATOR		Percent Cover			
1. Glycine max				Н	erbaceous		Upland		10 %			
3.				<del> </del>	•			+				
4.	*								%			
5.						%						
6.	•			<u> </u>					%			
PERCENT OF DOMINANT S			FACW+, FACW-	, FAC+, OR	FAC (EXCLUI	DING F	AC-): 0	<del></del>				
VEGETATION REMARKS:	farmed wetland	l, mostly bare										
				HYDR	OLOGY							
RECORDED DATA?			Describe:									
DEPTH OF SURFACE WATER: N/A (in)				D	EPTH TO SATE	URATE	Soil: >16 (in)					
DEPTH TO FREE WATER IN PIT: None (in)												
PRIMARY WETLAND INDICATORS:					CONDARY W	EILAN	D INDICATORS:					
Drift Lines				0	ther		<del> </del>					
Sediment Deposits					cal Soil Surv	ey						
REMARKS: farmed wetl:	and, suppressed	l crop							_			
	-				ILS				<u></u>			
MAP UNIT NAME (SERIES	AND PHASE): I							· · · · · · · · · · · · · · · · · · ·	AGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP):		Fı					No, Soil Type Enc	OUNTERE	o?			
			PRO	FILE D	ESCRIPT	ION						
DEPTH (INCHES)	Horizo	N	MATRIX COI (MUNSELL MO				LE COLOR LL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-8	A		10Y5 3/2			10YR	4/610%	,	Silt Loam			
8+	В		10YR 4/1			10YR	4/4 20%		Silty Clay Loam			
HYDRIC SOIL INDICATOR		T			<u></u>							
Listed Hydr	ic		Gleyed		<u> </u>							
Remarks:												
			WETLA	AND DE	TERMIN	ATIC	ON					
HYDROPHYTIC VEGETATION PRESENT? NO IS THIS SAMPLING PO												
WETLAND HYDROLOGY PRESENT? Yes Is THIS AN ISOLATED					WETLAND?	Yes						
HYDRIC SOILS PRESENT?	Yes											
NORMAL CIRCUMSTANCE	es? No		SIGNIFICA	NTLY DISTU	RBBD: Yes		POTENT	IAL PROB	LEM AREA? Yes			
Di	ESCRIPTIO	N OF WET	LAND CRO	SSING	TYPES AN	VD V	VETLAND Q	JALIT	CRITERIA			
HIGH QUALITY WETL							rse and mature veg		pes – hydrologic and soil indicators			

ble habitat for wildlife – high quality perennial stre

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

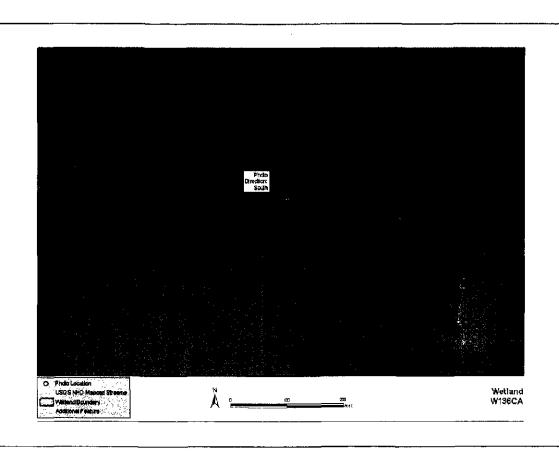
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site:		Rater(s):		Date:
00	Metric 1. V	letland Area (size).		
साथत है जोड़े अपने क्षेत्री	Select one size class as >50 acros (>2 25 to <50 acros (10 in <25 acros 3 to <10 acros (0.3 to <3 acros (0.3	ed assign score.  9.2ha) (6 pix)  s: (10.1 to <20.2ha) (5 pix)  s: (4 to < 10.1ha) (4 pix)  s: (1.2 to <4ha) (3 pix)  s: (0.12 to <1.2ha) (2pix)  res (0.04 to <0.12ha) (1 pi)		
	Metric 2. U	pland buffers and	surrounding la	and use.
mess 14 plus substituted	2a. Calculate average WIDE. Buffer MEDIUM. Bu NARROW. B VERY NARR 2b. Intensity of surroun VERY LOW. Old file MODERATE	buffer width. Select only one and assign a average 50m (164ft) or more eround willers average 25m to <50m (82 to <164f uffers average 10m to <25m (32ft to <8; OW. Buffers average 10m to <42ft) arounding land use. Select one or double children average to the control of the con	score. Do not double check without perimeter (7) it around wetland perimeter (6) around wetland perimeter (7) around wetland perimeter (7) ack and average.  Inah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new	(1)
7 10	Metric 3. H	ydrology.		
mos 30 dis. subsocial	3c. Maximum water de >0,7 (27.6in)   0.4 to 0.7 m (15.7 se. Modifications to na	ndwater (5) water (3) (1) smiltent surface water (3) lace water (lake or stream) (5) pth. Select only one and assign score. (3) 15.7 to 27.6in) (2) in) (1) tural hydrologic regime. Score one or do a pparent (12) Check all disturbances	Part of wetta Part of ripari 3d. Duration inunitation Semi- to per Regularly im Seasonally in Secondly in Subte check and average.	
	Recovering (	i) E tile	filling/grading road bod/RR dredging other	y R track
many 20 pts, subtable	4a. Substrate disturbat  None or none Recovered (3	ide. Score one or double check and ave apparent (4) ) ?)		114.
	Excellent (7) Very good (5) Good (5) Moderately g Fair (3) Poor to fair (2 Poor (1) Habitat alteration.	nt. Select unly one and assign score.  pod (4)  Score one or double check and average.		
	None or none Recovered (6 Recovering (1 Recont or no	) mowing grazing	shrub/sapling herbaceous/r sadimentatio dredging	aquatic bed removal n

	Rater(s): //	Date:
Substatel this page		
✓ Metric 5. Specia	al Wetlands.	
Check all that apply and score as Rog (10) For (10) Old growth forest (10) Mature forested wellant Lake Erie coastal/tribut Lake Plain Sand Prairie Relict Wel Praires (10) Known occurrence stat	s indicated.  d (5) tary wetland-unrestricted hydrology tary wetland-restricted hydrology (5 tary wetland-restricted hydrology (5 tary wetland-restricted hydrology (5	d species (10)
<b></b>	See Question 1 Qualitative Rating (	• •
Metric 6. Plant	communities, in	terspersion, microtopography
r 20 pts. subscer 6s, Wetland Vegetation Contamu		
Score all present using 0 to 3 scr	***************************************	Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed See Emergent	3	Present and either comprises small part of welland's vegetation and is of moderate quality, or comprises a
Shrub		significant part but is of low quality
÷ Forest	2	Present and either comprises significant part of wetland's
📝 Mudilals		vegetation and is of moderate quality or comprises a small
① Open water		part and is of high quality
Other	3	Present and comprises algnificant part, or more, of welland's
6b. borizontal (plan view) Intersp	persion	vegetation and is of high quality
Select only one.		
1 3 Llink (E)	Manusius Desaului	on of Venetalien Custille
High (6) Moderately high(4)		on of Vegetation Quality  it ow sho diversity and/or predominance of connative or
High (6)   Moderately high(4)   Moderate (3)	Harrative Deseripti low	Low app diversity and/or predominance of nonnative or disturbance tolerant native species
Moderately high(4)		Low spp diversity and/or predominance of nonnative or
Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp
Moderately high (4)  Moderately (3)  Moderately low (2)  Low (1)  None (0)	tow	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to
Moderately high (4)  Moderately (3)  Moderately low (2)  Low (1)  None (0)  6c. Coverage of invasive plants.	low med	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare
Moderately high (4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants, to Table 1 ORAM long form for its	low med . Refer ist, Add	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp
Moderately high (4)  Moderately (3)  Moderately low (2)  Low (1)  None (0)  6c. Coverage of invasive plants.	ned  Refer ist, Add	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for it or deduct points for coverage  Extensive >75% cover  Moderate 25-75% cover	Refer ist. Add high r (-5) er (-3)	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always,
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for lift or deduct points for coverage  Extensive >75% cover Moderate 25-75% cover (-	Refer ist. Add high (-5) er (-3)	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for it or deduct points for coverage  Extensive >75% cover  Moderate 25-75% cover (-  Nearly absent <5% cover (	iow  med  Refer ist. Add  high  (-5) er (-3) -1) wer (0)	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for lit or deduct points for coverage  Extensive >75% cover  Moderate 25-75% cover  Sparse 5-25% cover (-	iow  med  Refer ist. Add  high  (-5) er (-3) -1) wer (0)	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, atthough nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for it or deduct points for coverage  Extensive >75% cover  Moderate 25-75% cover (- Nearly absent <5% cover (- Nearly absent <5% cover (- Nearly absent <5% cover (-)	iow  med  Refer ist. Add  high  (-5) er (-3) -1) wer (0)  Muditat and Open \( \)	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for lift or deduct points for coverage  Extensive >75% cover  Moderate 25-75% cover (-  Nearly absent <5% cov  Absent (1)  6d. Microtopography.	iow  med  Refer ist. Add  high  (-5) er (-3) -1) wer (0)  Muditat and Open 1  G sale.  1	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and speciallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Mater Class Quality  Absent <0.1ha (0.247 acres)
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants to Table 1 ORAM long form for it or deduct points for overage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	iow  med  Refer ist. Add  high  (-5) er (-3) -1) ver (0)  Muditat and Open  G ale.  1  /fussucks 2 >15cm (6in) 3	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare. threatened, or endangered spp  Water Class Quality  Absent <0.1hs (0.247 acres)  Low 0.1 to <1hs (0.247 acres)
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants.  to Table 1 ORAM long form for it or deduct points for overage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	Iow  med  Refer ist. Add  high  (-5) er (-3) -1) ver (0)  Muditat and Open  G  ale.  1  /fussucks  2  >15cm (6in)  3  (10in) obh	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native speps and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Mater Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High sitia (9.88 acres) or more
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants.  to Table 1 ORAM long form for it or deduct points for overage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	Iow  med  Refer ist. Add  high  (-5) er (-3) -1) ver (0)  Muditat and Open (  ale. 1  /tussucks 2  -15cm (6in) 3  (10in) dbh cols Microtopography (	Low spp diversity and/or predominance of normative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Nator Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  Hagt sites (9.88 acres) or those
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants.  to Table 1 ORAM long form for it or deduct points for orverage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	Iow  med  Refer ist. Add  high  (-5) er (-3) -1) ver (0)  Muditat and Open  G  ale.  1  /fussucks  2  >15cm (6in)  3  (10in) obh	Low spp diversity and/or predominance of normative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Mater Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High sitia (9.88 acres) or more
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants.  to Table 1 ORAM long form for it or deduct points for orverage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	Iow  med  Refer ist, Add  high  (-5) er (-3) -1) ver (0)  Mudifat and Open  G ale. 1  /fussucks 2 -15icm (6in) 3  (10in) dbh cols Microtopography C	Low spp diversity and/or predominance of normative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Nation Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High sitia (9.88 acres) or more
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants.  to Table 1 ORAM long form for it or deduct points for orverage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	Iow  med  Refer ist. Add  high  (-5) er (-3) -1) ver (0)  Muditat and Open \  G  ale.	Low spp diversity and/or predominance of normative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native species, with normative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Nater Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High site (9.88 acres) or more  Sever Scale  Absent  Present very small amounts or if more common of marginal quality  Present in moderate amounts, but not of highest
Moderately high(4)  Moderately iow (2)  Low (1)  None (0)  6c. Coverage of invasive plants.  to Table 1 ORAM long form for it or deduct points for orverage  Extensive >75% cover  Moderate 25-75% cover  Moderate 25-75% cover (	Iow  med  Refer ist, Add high (-5) er (-3) -11) ever (0)  Mudifiat and Open to the state of the	Low spp diversity and/or predominance of normative or disturbance tolerant native species  Native spp are dominant component of the vegetation, although nonnetive and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp  A predominance of native spp and/or disturbance tolerant native spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp  Nater Class Quality  Absent <0.1ha (0.247 acres)  Low 0.1 to <1ha (0.247 to 2.47 acres)  Moderate 1 to <4ha (2.47 to 9.88 acres)  High site (9.88 acres) or more  Cover Scale  Absent  Present very small amounts or if more common of marginal quality

GRAND TOTAL (max 100 pts)

Relating the most recent CRAM Source Contraction Report on the section, areas power between welfand categories at the following address: http://www.epa.stote.oft.ualdas/10\*401.2cml





Wetland W136CA



SURVEY TYPE: Blue		WETLAND ID NO.: W136CA							
			·			_	AM ID No: <b>S136C</b>		
DATE 09/18/2009		CL	LIENT/PROJECT NAME	E: Heartlan	nd Wind LLC	C./ Blue	Creek Wind Fan	m	
Investigators: Hook		St.	ATE/COUNTY: Ohio/	/Van Wert		ROVER FILE: RAH091809A.com			QUAD NAME: Scott
Huc 12 Code: 041000070	1701	To	ownship: Union		Рното No.:				
WETLAND QUALITY: Low	7				ID TYPE: Palus Emergent	trine			
	PLANT SPE	CIE5		s	STRATUM		INDICATOR		PERCENT COVER
1. Zea mays				Н	lerbaceous		Upland		20 %
2 Abutilon theophrasti					lerbaceous		Upland		5 %
3. Glycine max				<del> </del> #	lerbaceous		Upland		20 %
<u>4.</u> 5.				+		<del></del>			<u>%</u> %
6.					•				<u>%</u>
	Concern Tillet N	OPI FAC	THE EACTOR EACTO	T EACH OR	FAC (everus	THE EAC	1). A		
PERCENT OF DOMINANT S			W, FACW+, FACW	/-, FAC+, OR	FAC (EXCLUE	ING FAL	C-): U		· · · · · · · · · · · · · · · · · · ·
VEGETATION REMARKS:	farmed, mostly	bare soil							
				Hydr	OLOGY				
RECORDED DATA?		<u> </u>	Describe:	<del> </del>			····		
DEPTH OF SURFACE WATE	D	PEPTH TO SATU	RATED 9	OIL: >16 (in)					
DEPTH TO FREE WATER IN		<u>.</u>							
PRIMARY WETLAND INDI	CATORS:			Si	ECONDARY WI	ETLAND I	NDICATORS:		
Drift Lines				L	ocal Soil Surv	ey		L	
REMARKS: farmed, supp	pressed crop, ri	ıtted			<del>-</del> "	_			
				Sc	DIL5			_	
Map Unit Name (Series	AND PHASE): I	atty silty cla	ıy, 0 percent slopes	_			р	RAINA	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP):			FIELD OBSERVATION	ONS CONFIR	m Mapped Ty	PE. IF NO	, SOIL TYPE ENCOUN	TERED	
			PR	OFILE D	ESCRIPTI	ON			
DEPTH (INCHES)	Horizo	N	MATRIX CO (Munsell M			IOTTLE ( UNSELL	COLOR MOIST)	F	Fexture, Concretions, Structure, etc.
0-4	А		10YR 4/2	2					Silt Loam
4+	В		2.5Y 5/1			7.5¥ 5/6	530%		Silt Loam
Hydric Soil Indicators					7				
Listed Hydr	ic	<u> </u>	Gleyed		<u> </u>				·
Remarks:									
,			WETT	AND DE	ETERMINA	ATTON	j		· · · · · · · · · · · · · · · · · · ·
HYDROPHYTIC VEGETATI	OU PORRENT?	M.			DINT WITHIN A				
WETLAND HYDROLOGY P	•	40			WETLAND?		NDI 165		
***************************************		<del></del>	10 1140 4	IN ISOFWIEL	TTELLAIRE.	: <del>Co</del>			
HYDRIC SOILS PRESENT?  NORMAL CIRCUMSTANCE			SIGNIFIC	ANTLY DISTL	mpen. Ma		POTENTIAL	DPARIE	M AREA? Yes
		TOTAL				TA/E			
	ESCRIPTIO	IN OF YY	ETLAND CRO	199ING 1	I IPES AI	ID AAE	ILAND QUA	Tiis	CRITERIA
<del></del>	AND: no indica	ation of stres	s or disturbance in v	wetland or a	adjacent area -	- diverse	and mature vegetat	tion typ	es - hydrologic and soil indicators

are characteristic of the specific community type - provides suitable nabitat for wildlife - high quality perennal streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field F	orm Quantitative Rating .				
Site: WOL	36CA	Rater(s):	R HOOK	Da	te: 9/18/09
O O mex 8 pts. subtotal	Metric 1. Wetland A Select one size class and assign so >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)	ore. i) 20.2ha) (5 pta) tha) (4 pta) a) (3 pta) .2ha) (2pta) <0.12ha) (1 pt)	•		
	Metric 2. Upland bu	iffare and	eurrounding	land use	
mest 14 pts. subtotal	2a. Calculate average buffer width.  WIDE, Buffers average 50  MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers  2b. Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re HIGH. Urban, Industrial, of	Select only one ar Om (184R) or more a 25m to <50m (82 ge 10m to <25m (* average <10m (< a. Select one or dor older forest, prais), shrubland, your sidential, fenced p	nd assign score. Do no around wetlend perime to <164ft) around wetle 32ft to <62ft) around we 32ft) around wetland per ouble check and average rie, savannah, wildlife and g second growth forest easture, park, conservations	t double check. Iter (7) and perimeter (4) Itland perimeter (1) Itland perimeter (1) Itland perimeter (0) ge. Itland perimeter (7) Itland perimeter (7) Itland perimeter (8) Itland perimeter (9) Itla	d. (3)
7 8	Metric 3. Hydrology	<b>.</b>			
max 30 pts. subtotal	3a. Sources of Water. Score all tha High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surface water (a 3c. Maximum water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <ul> <li>0.4m (&lt;15.7in) (1)</li> </ul> 3e. Modifications to natural hydrology	t apply. see water (3) like or stream) (5) inly one and assign	3d. Dura	Part of welland/upland Part of riparian or uplar tion inundation/saturation Semi- to permanently in Regularly inundated/sa 'Seasonally inundated ( Seasonally saturated in	nd other human use (1) (e.g. forest), complex (1 ad confdor (1) a. Score one or dbl che nundated/saturated (4) turated (3)
	None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	Check all dist. ditch tile dike weir stormwat		point source (nonstorm filling/grading road bed/RR track dredging other dawwy	
3 11	   Metric 4. Habitat Al	iteration a		( "	
resoc 20 pts. substotal	4e. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or	ne or double cheol ily one and assign	end average.		
outstated links p	None or none apparent (9) Recovering (3) Recent or no recovery (1)	Check all dista mowing grazing clearcutii	rbances observed  ng outting obtis removal	shrub/sapling removal herbacaous/aquatic be- sedimentation dredging farming nutrient enrichment	1 ramoval

last revised 1 February 2001 jjm

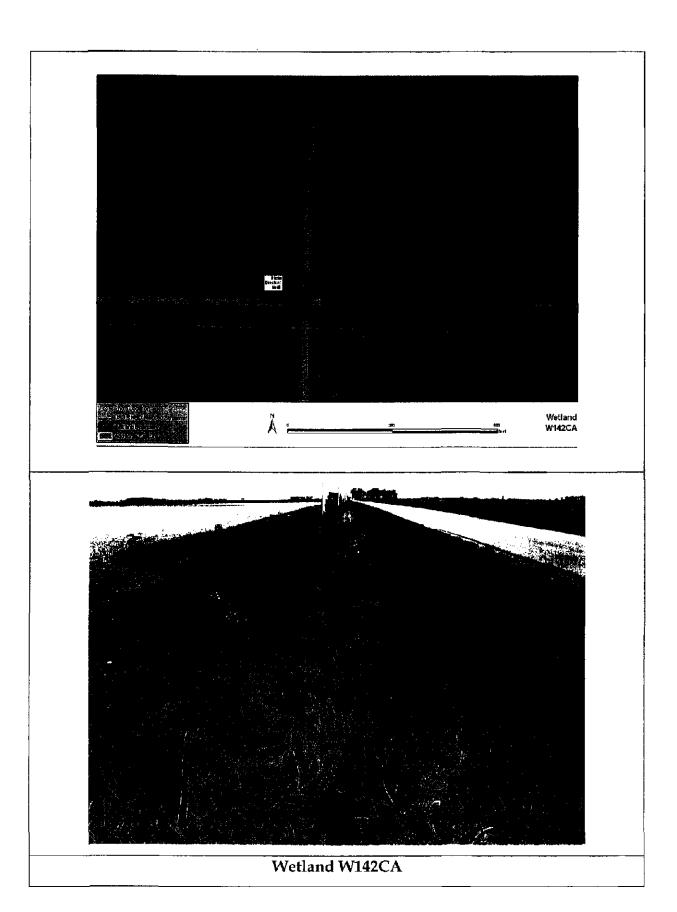
Site:	10136 CA	Rater(s): R	Hook	Date: 9/18/09
subtotal l	<del>.                                    </del>	e as indicated.		
	Mature forested wet	-		
	Lake Erie coastal/tri Lake Plain Sand Pre Relict Wet Prairies ( Known occurrence s	ibutary wetland-unrestricted in ibutary wetland-restricted hyd siries (Oak Openings) (10) (10) state/federal threatened or en y songbird/water fowl habitat	drology (5) ndangered species (10)	
		See Question 1 Qualitative		
1 1	2 Metric 6. Plant			icrotopography.
тых 20 різ. аль	total 6a. Wetland Vegetation Com		on Community Cover Scale	W 7/4 A 7/4
	Score all present using 0 to 3 Aquatic bed	scale. <u>O</u>		.1ha (0.2471 acres) contiguous area prises smail part of wetland's
	/2 Emergent	•		oderate quality, or comprises a
	Shrub		eignificent part but is o	- · ·
	Forest Mudflats Open water	2	•	orises algorificant part of wetland's oderate quality or comprises a small lity
	Other	3		significant part, or more, of wetland's
	6b. horizontel (plan view) Inte	rspersion.	vegetation and is of hi	
	Select only one.			
	High (5)		Description of Vegetation	
	Moderately high(4)  Moderate (3)	. low	disturbance tolerant n	r predominance of nonnative or
	Moderately low (2)	mod	The state of the s	component of the vegetation,
	Low (1)			d/or disturbance tolerant native app
	None (0)			nd species diversity moderate to
•	Sc. Coverage of invasive plan			enerally w/o presence of rare
	to Table 1 ORAM long form to or deduct points for coverage	high	threatened or endange	e species, with nonnative app
	Edensive >75% con			erant native spp absent or virtually
	Moderate 25-75% c	over (-3)		liversity and often, but not always,
	Sparse 5-25% cove	•	the presence of rare, t	hreatened, or endangered spp
	Nearty absent <5%	• •		••
	Absent (1) 6d. Microtopography.	anuomat s	and Open Water Class Qual Absent <0.1hg (0.247 a	
	Score all present using 0 to 3		Low 0.1 to <1ha (0.2471	
	Vegetated hummud		Moderate 1 to <4he (2.4	
	Coarse woody debri		High 4he (9.88 acres) or	More
	Standing dead >25c			
	Amphibian breading	g pools <u>Microtog</u> 0	ography Cover Scale Absent	
		1	Present very small emot of marginal quality	ants or if more common
		2		ounts, but not of highest

/2 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the according breelepoints between westernd categories at the following address: http://www.epu.stata.oh.us/dewf409441.html last revised 1 February 2001 jim

quality or in small amounts of highest quality Precent in moderate or greater amounts

and of highest quality



SURVEY TYPE: Blu	e Creek W	ind Farm			WETLAND ID NO.: W142CA ASSOCIATED STREAM ID NO: N/A				
DATE: 09/17/2009		Cur	NT/PROJECT NAME	· Heartlan	rtland Wind LLC./ Blue Creek Wind Farm				
					iu miu de	·		<u> </u>	
Investigators: D.Wes	t, M. Nechvatal	STAT	E/COUNTY: Ohio/	Paulding		ROVER FILE RO	91709ADW.cor	Quad Name: Latty	
Huc 12 Code: 04100007	0703	Tow	NSHIP: Blue Creek	s.		Рното No.: 142	C17N & 142C18	3W	
WEILAND QUALITY: Lov	W				LAND TYPE: Palustrine FYPE: Emergent				
	PLANT SPE	CIES		9	TRATUM	TUM INDICATOR		PERCENT COVER	
1. Scirpus atrovirens				Н	lerbaœous	Oblig		10 %	
2. Leersia oryzuides					lerbaceous	Oblig		20 %	
Typha latifolia     Scirpus validus			<del></del>		lerbaceous	Oblig		50 % 10 %	
5.				<del>                                     </del>	Ierbaceous	Oblis	zate	<u>10 %</u>	
6.				t				<u> </u>	
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL. FACW	I. FACW+ FACW-	. FAC+. OR	FAC (Excuse	ING FAC-): 100			
VEGETATION REMARKS:	-					MGTAC-J. 100	<u></u>		
				Hydr	OLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WA		D	EPTH TO SATI	RATED SOIL: 0 (in	n)				
DEPTH TO FREE WATER									
PRIMARY WETLAND INC		Sı	ECONDARY W	ETLAND INDICATO	RS:				
Drainage Patterns				Le	ocal Soil Surv	ey			
Saturated Upper 12in				F/	AC Neutral T	est			
REMARKS: roadside di	tch; linear wetla	nd, drainage fo	or adj ag field to W	' & S					
				Sc	HLS				
MAP UNIT NAME (SERIE	s and Phase): 1	Latty clay, 0 pe	rcent slopes (flats)				DRAIN	NAGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP	:	1	FIELD OBSERVATIO	NS CONFIR	M MAPPED T	PE IF NO, SOIL T	PE ENCOUNTER	BD?	
			PRO	FILE D	<b>ESCRIP</b> TI	ON			
DEPTH (INCHES)	Horizo	N	MATRIX COI (MUNSELL MO			(OTTLE COLOR UNSELL MOIST)	ı"	TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-2	A		10YR 4/2			No mottles		Silt loam	
2-12+	В		2.5YR 4/1			10% 10YR 6/6		Silt loam	
HYDRIC SOIL INDICATOR		т	Cl1		<u>r</u>				
Listed Hyd REMARKS:	ric	<u> </u>	Gleyed		<u>                                       </u>		<u> </u>		
·			WETLA	AND DE	TERMIN.	ATION			
Hydrophytic Vegetat	TON PRESENT?	Va.							
WETLAND HYDROLOGY		1 50			NG POINT WITHIN A WETLAND? Yes  LATED WEILAND? No				
HYDRIC Soils PRESENT				· seventil					
NORMAL CIRCUMSTANC			SIGNIFICA	NTLY DIST	URBED: No	1	OTENTIAL PROP	BLEM AREA? No	
		N OF WE	LAND CRO						
HIGH QUALITY WET	AND: no indic	ation of stress o	or disturbance in w	vetland or a	djacent area	,	ure vegetation t	ypes – hydrologic and soil indicators	

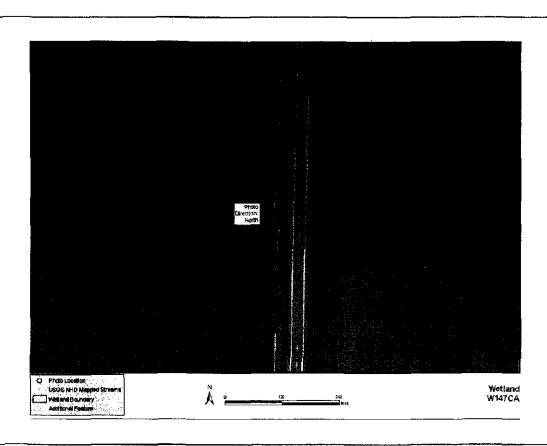
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

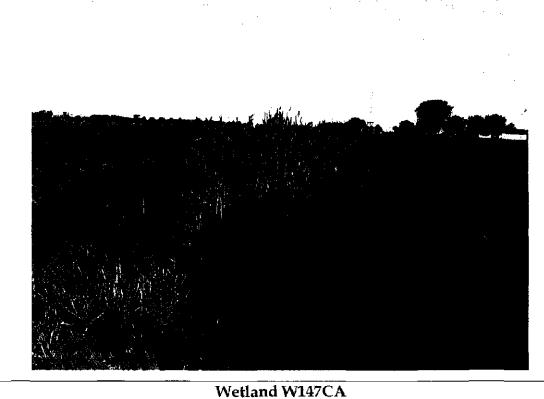
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field Form	Quantitative Rating				
Site: W14	ZCA	Rater(s):	P- Hook	Date:	9/17/09
_ السبيسطسينتيمسا	letric 1. Wetland A	•	•		
max 6 pts. subtotal Se	>50 acres (>20.2ha) (6 pts   >50 acres (>20.2ha) (6 pts   26 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.	a) 20.2ha) (5 pte) 1ha) (4 pts) a) (3 pts) i.2ha) (2pts) <0.12ha) (1 pt)	lacn	L	
1 3 M	ietric 2. Upland bu	ıffers and	surrounding	g land use.	
	Calculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re	Im (1648) or more a 25m to <50m (62 ge 10m to <25m (3 average <10m (≤ a. Select one or d or older forest, prei a), shrubland, youn asidential, fenced p	around wetland perim to <164ft) around wet 12ft to <82ft) around w 12ft) around wetland pro ouble check and avera rie, savannah, wildlife g second growth fores esture, park, conserva	ster (7) land perimeter (4) stiand perimeter (1) stimeter (0) ge. area, etc. (7) t. (5) tion tillage, new fallow field. (:	3)
10 13 M	letric 3. Hydrology	<b>/</b> .		•	
max 30 pts. subtotal 3a).	Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surfice water (is Maximum water depth. Select of 20.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) 40.4m (<15.7in) (1) Modifications to natural hydrological series and series are series as a series are series are series as a series are series as a series are series are series are series as a series are series are series as a series are series are series are series as a series are serie	t apply. ace water (3) ake or stream) (5) inly one and assign	3d. Dur	mectivity. Score all that apply 100 year floodplain (1) Between stream/lake and of Part of wetland/upland (e.g. Part of riperian or upland of ation inundation/saturation. S Semi- to permanently inundated/satura Seasonally inundated (2) Seasonally saturated in upland average	other human use (1)  i. forest), complex (1)  orridor (1)  icore one or dbi chec  dated/saturated (4)  ted (3)
	None or none apparent (12) Recovering (3) Recent or no recovery (1)		rbances observed	point source (nonstormwat filling/grading road bed/RR track dredging other	er)
7 20 N	letric 4. Habitat A	iteration a	nd Developi	nent.	
	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select on	)	-		
	Excellent (7) Very good (6) Good (6) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or				
20 subtotal this page	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcuttle selective	cutting 3 bris removal	shrub/sapling removal herbereous/aquatic bed re- sedimentation tiredging familing nutrient enrichment	moval

	142 CA	Rater(s):	R	Hock	Date: 7/17/09
subtotal tirst p  - 20 max 10 pts. subtotal  3 23	Metric 5. Special V Check all that apply and score as in Bog (10) Fen (10) Old growth forest (10) Meture forested wetland (i Lake Erie coastel/iributary Lake Erie coastel/iributary Lake Plain Sand Pratries Relict Wet Pruiries (10) Known occurrence statel/if Significant migratory song Category 1 Wetland. See  Metric 6. Plant Con	dicated.  5)  / wetland-unrestricted / wetland-restricted (Oak Openings) (1 scieral threatened of bird/weter fowt hal	ted hydrok 1 hydrok 0) or ender bitat or t ative Ra	ology (10) ology (5) ologered species (10) ologered (10) o	
mex 20 pts. subtotal	<ul> <li>6a. Wetland Vegetation Communities</li> <li>Score all present using 0 to 3 scale.</li> </ul>			About or commisse of	the 40 2471 cores) modern our cores
	Aquatic bed		1		1ha (0.2471 acres) contiguous area rises small part of wetland's
	/ Emergent		-	•	derate quality, or comprises a
	Shrub			significant part but is o	
	Forest		2		rises significant part of wetland's
	Mudflets			. •	oderate quality or comprises a small
	Open water			pert and is of high qual	
	Other  6b. horizontal (plan view) interspen		3	vegetation and is of hig	ignificant part, or more, of wetland's th quality
	Select only one.				
	High (5)	Nam	diye De	ecription of Vegetation C	
	Moderately high(4)		low		predominance of nonnative or
	Moderate (3)	<u> </u>		disturbance tolerant na	
	Moderately low (2)	r	nod	1	component of the vegetation,
	Low (1)			_	Vor disturbance tolerant native app
	None (0)				nd species diversity moderate to
	<ul> <li>6c. Coverage of invasive plants. R</li> </ul>	ater			
					enerally w/o presence of rare
	to Table 1 ORAM long form for list.	Add	.dl.	threatened or endange	red spp
	to Table 1 ORAM long form for list. or deduct points for coverage	Add -	nigh	threatened or endange A predominance of native	red spp s spacies, with nonnetive spp
	to Table 1 ORAM long form for list. or deduct points for coverage Extensive >75% cover (-5	Add	nigh	threatened or endange A predominance of native and/or disturbance tole	red spp a species, with nonnetive spp rant native spp absent or virtually
	to Table 1 ORAM long form for list. or deduct points for coverage Extensive >75% cover (-5 Moderate 25-75% cover (-5)	Add	nigh	threatened or endange A predominance of native and/or disturbance tole absent, and high app d	red spp species, with nonnetive spp rant native spp absent or virtually iversity and often, but not always,
	to Table 1 ORAM long form for list. or deduct points for coverage Extensive >75% cover (-5 Moderate 25-75% cover (-1) Sparse 5-25% cover (-1)	Add	nigh .	threatened or endange A predominance of native and/or disturbance tole absent, and high app d	red spp a species, with nonnetive spp rant native spp absent or virtually
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5  Moderate 25-75% cover (-1)  Nearly absent <5% cover	Add		threatened or endange A predominance of native and/or disturbance tole absent, and high spp d the presence of rare, the	red spp a species, with nonnetive spp rant native spp absent or virtually iversity and often, but not always, mestaged, or endangered spp
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5) Moderate 25-75% cover (-1) Nearly absent <5% cover Absent (1)	Add		threatened or endange A predominance of native and/or disturbance tote absent, and high spp d the presence of rare, it  Open Water Class Quality	red spp e species, with nonnetive spp erant native spp absent or virtually iversity and often, but not always, prestened, or endangered spp
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5  Moderate 25-75% cover (-1)  Nearly absent <5% cover	Add	fleet and	threatened or endange A predominance of native and/or disturbance tote absent, and high spp d the presence of rare, th  Open Water Class Qualit Absent <0.1ha (0.247 ac	red spp s species, with nonnative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp iversity
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-1)  Sparse 5-25% cover (-1)  Nearly absent <5% cover  Absent (1)  6d. Microtopography,  Score all present using 0 to 3 scale.	Add	Red and	threatened or endange A predominance of native and/or disturbance tole absent, and high spp d the presence of rare, th  Open Water Class Qualit Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 bc	red spp s species, with nonnative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp by cres) 5 2.47 acres)
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-1)  Nearly absent <5% cover  Absent (1)  6d. Microtopography.  Score all present using 0 to 3 scale.  Vegetated hummucks/tus	Add (i) (ii) (iii)	let and	threatened or endange A predominance of native and/or disturbance tole absent, and high spp d the presence of rare, th  Open Water Class Qualit Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.44	red spp s species, with normative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp iv xes) 2.47 acres) 7 to 9.88 acres)
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-1)  Sparse 5-25% cover (-1)  Nearly absent <5% cover  Absent (1)  6d. Microtopography,  Score all present using 0 to 3 scale.	Add  (0)  (0)  Mudi	flet and 0 1 2	threatened or endange A predominance of native and/or disturbance tole absent, and high spp d the presence of rare, th  Open Water Class Qualit Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 bc	red spp s species, with normative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp iv xes) 2.47 acres) 7 to 9.88 acres)
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography, Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15	Add i) (0) Mudi sucks crn (6in) in) dbh	1 2 3	threatened or endange A predominance of native and/or disturbance tole absent, and high spp d the presence of rare, th  Open Water Class Qualit Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.44	red spp s species, with normative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp iv xes) 2.47 acres) 7 to 9.88 acres)
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15 Standing dead >25cm (10)	Add i) (0) Mudi sucks crn (6in) in) dbh	1 2 3	threatened or endange A predominance of native and/or disturbance tole absent, and high app d the presence of rare, if  Open Water Class Qualit Absent <0.1ha (0.247 ac Low 0.1 to <1ha (0.247 b Moderate 1 to <4ha (2.4 High 4ha (9.88 acres) or	red spp s species, with normative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp iv xes) 2.47 acres) 7 to 9.88 acres)
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15 Standing dead >25cm (10)	Add i) (0) Mudi sucks crn (6in) in) dbh	net and 0 1 2 3	threatened or endange A predominance of native and/or disturbance tole absent, and high app d the presence of rere, it  Open Water Class Qualif Absent <0.1ha (0.247 at Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.4 High 4ha (9.88 acres) or	red spp a species, with normative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp by cres) 2.247 acres) 7 to 9.88 acres) more
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15 Standing dead >25cm (10)	Add i) (0) Mudi sucks crn (6in) in) dbh	flet and 0 1 2 3 3 oxtopour 0	threatened or endange A predominance of native and/or disturbance tole absent, and high app d the presence of rere, it  Open Water Class Quali Absent <0.1ha (0.247 at Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.4 High 4ha (9.88 acres) or  John Cover State Absent	red spp a species, with normative spp rant native spp absent or virtually iversity and often, but not always, westened, or endangered spp by cres) 2.247 acres) 7 to 9.88 acres) more
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15 Standing dead >25cm (10)	Add i) (0) Mudi sucks crn (6in) in) dbh	flet and 0 1 2 3 3 oxtopour 0	threatened or endange A predominance of native and/or disturbance tole absent, and high app d the presence of rere, it  Open Water Class Qualif Absent <0.1ha (0.247 at Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.24 High 4ha (9.88 acres) or  notiv Cover State Absent Present very small amou	red spp a species, with normative spp rant native spp absent or virtually iversity and often, but not always, meetened, or endangered spp iversity area 2.247 acres) 7 to 9.88 acres) more
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15 Standing dead >25cm (10)	Add i) (0) Mudi sucks crn (6in) in) dbh	Ret and 0 1 2 3 Otopogr	threatened or endange A predominance of native and/or disturbance tole absent, and high spp d the presence of rere, it  Open Water Class Qualit Absent <0.1ha (0.247 to Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.4 High 4ha (9.88 acres) or only Cover State Absent Present very small amou of marginal quality	red spp a species, with normative spp rank native spp absent or virtually iversity and often, but not always, westened, or endangered spp by cres) 2.47 acres) 7 to 9.88 acres) more  rits or if more common
	to Table 1 ORAM long form for list. or deduct points for coverage  Extensive >75% cover (-5 Moderate 25-75% cover (-1) Nearly absent <5% cover (-1) Nearly absent <5% cover Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale.  Vegetated hummucks/tus Coerse woody debris >15 Standing dead >25cm (10)	Add i) (0) Mudi sucks crn (6in) in) dbh	Ret and 0 1 2 3 Otopogr	threatened or endange A predominance of native and/or disturbance tole absent, and high app d the presence of rare, it  Open Water Class Qualit Absent <0.1ha (0.247 to Moderate 1 to <4ha (2.247 to Moderate 1 to <4ha (2.24 to High 4ha (9.88 acres) or solvy Cover Scale Absent Present very small amou of marginal quality Present in moderate and	red spp a species, with normative spp rank native spp absent or virtually iversity and often, but not always, westened, or endangered spp by cres 2.47 acres 7 to 9.88 acres more rits or if more common punts, but not of highest uints of highest quality

Refer to the most recent ORAM Score Calibration Report for the econing breatpoints between westend categories at the following address: http://www.epe.estele.ch.us/ssw(401/401.html last revised: 1 February 2001 ijm





SURVEY TYPE: Blu		WETLAND ID NO.: W147CA ASSOCIATED STREAM ID NO: N/A							
DATE: 09/17/2009		CLIENT	PROIECT NAME:	Heartland	land Wind LLC./ Blue Creek Wind Farm				
INVESTIGATORS: D.Wes	+ M Nachvatal		COUNTY: Ohio/P		TIMO DE		ile: R091709ADW		UAD NAME: Latty
INVESTIGATORS. D., VVES	L, IVI. I VECTIVALE	Sinie	COUNTY ORIGIN	autuing					CAD NAME: Latty
Huc 12 Cods: 04100007	0703	Towns	HIP: Blue Creek			Рното N	io.: 147C4N & 147	C5S	
WETLAND QUALITY: LOV	W				AND Type: Palustrine rpe: Emergent				
	PLANT SPE	CIES		St	RATUM	]	INDICATOR		PERCENT COVER
1. Scirpus arrovirens					rbaceous		Obligate		10 %
Leersia oryzoides     Typha angustifolia					rbaceous rbaceous		Obligate Obligate		20 % 70 %
4.	Пе	ruaceous		Congate	41				
5.						%%			
6.							i		%
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, FACW, I	FACW+, FACW-,	FAC+, or F	AC (EXCLUE	ING FAC-)	: 100		
Vegetation Remarks:	roadside ditch;	linear wetland,	irainage for adj a	g field to W	·				
				HYDRO	DLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WATER: N/A (in)					PTH TO SATU	rated Soi	ıı: >16 (in)		
DEPTH TO FREE WATER I	N PIT: Nor	e (în)						·	<u></u>
PRIMARY WETLAND IND	ICATORS:	<del></del>		Sec	ONDARY WI	RTEAND ÎNI	DICATORS:		
Drainage Patterns				Loc	al Soil Surve	ey_		ļ	····
<u></u>	<u> </u>			FA	C Neutral To	est		<u></u>	
REMARKS: roadside di	ch; linear wetla	nd, drainage for	adj ag field to W						
				So	ILS				
Map Unit Name (Serie	s and Phase): 1	atty clay, 0 perc	ent slopes (flats)		DRAINAGE CLASS: Very poorly drained				
TAXONOMY (SUBGROUP)	:	Fu	LD OBSERVATION	15 CONFIRM	MAPPED TY	pe. If No, S	SOIL TYPE ENCOUN	TERED?	
		<del></del> ::	Pro	FILE DE	SCRIPTI	ON			
DEPTH (INCHES)	Horizo	N	MATRIX COLO (MUNSELL MO			OTTLE CO		TE	XTURE, CONCRETIONS, STRUCTURE, ETC.
0-6	А		10YR 5/2			5% 5YR 4	./4		Silt loam
6-12+	В		10YR 5/1	· · · · · · · · · · · · · · · · · · ·		45% 10YR			Silty Clay Loam
HYDRIC SOIL INDICATOR	ts:								·
Listed Hyd	ric		Gleyed						
Remarks:									
			WETLA	ND DET	TERMIN.	ATION			
HYDROPHYTIC VEGETAT	ION PRESENT?	(es			NT WITHIN A		? Yes		
WETLAND HYDROLOGY	PRESENT? Yes		Is This An	ISOLATED V	Vetland?	lo ol			
Hydric Soils Present?	Yes								
			Significan	TLY DISTUR	REED: No		POTENTIAL!	PROBLEM.	Area? No
NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: No POTENTIAL PRO DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALIT									
	ESCRIPTIC	N OF WETI	AND CROS	SING T	YPES AN	D WET	LAND QUA	LITY C	RITERIA

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



#### ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue Creek						WETLAND ID NO.: U147CA				
						ASSOCIATED WETLAND ID NO: W147CA				
DATE: 09/17/2009			CLIENT/P	ROJECT NAME:	Heartlan	nd Wind LL	C./ Blue	Creek Wind Fa	ırm	
Investigators: D.Wes	t, M. Nechvata		STATE/CO	NUNTY: Ohio/	Paulding	QUAD NAME: Latty				
HUC 12 CODE: 041000070703 TOWNSHIP: Blue Creek					•	•	Рното М	No.: 147C6N		
						D TYPE: N/A : Upland				
PLANT SPECIES						STRATUM	1	INDICATOR	PERCENT COVER	
1. Trifolium pratensis						lerbaceous		Fac Up -	20 %	
Poa pratensis     Coreopsis sp.	2. Poa pratensis					lerbaceous lerbaceous	-	Fac Up Fac Up	30 % 30 %	
4. Taraxacum officinale						lerbaceous		Fac Up -	20 %	
5.									%.	
6.							<u> </u>		%	
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, 1	FACW, FA	CW+, FACW-	,FAC+,OR	FAC (EXCLUE	DING FAC-	<u>):</u> 0		
Vegetation Remarks:										
					HYDR	OLOGY				
RECORDED DATA?				Describe:						
DEPTH OF SURFACE WA	ier: N/	A (in)			D	ертн то Ѕап	JRATED SO	ıı: >16 (in)		
DEPTH TO FREE WATER:	IN PTT: No	ne (in)								
PRIMARY WETLAND IND	ICATORS:	,			Si	ECONDARY W	ETLAND IN	DICATORS:		
None										
Remarks:										
_	<u> </u>				Sc	DILS				
Map Unit Name (Serie	S AND PHASE):	Latty clay	, 0 percent	slopes (flats)					DRAINAGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP)	):		FIRL	OBSERVATIO	NS CONFIR	м Маррер Ту	PE. IF NO,	SOIL TYPE ENCOL	INTERED?	
				Pro	FILE D	ESCRIPT	ION			
DEPTH (INCHES)	HORIZO	ON		MATRIX COL MUNSELL MO			IOTTLE C UNSELL N		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
no soil pit dug				no soil pit du	1g					
no soil pit dug										
HYDRIC SOIL INDICATOR	RS:									
						<u> </u>	···	***	<u> </u>	
Remarks:										
				WETLA	ND DE	TERMIN.	ATION			
HYDROPHYTIC VEGETAT	ION PRESENT?	No		T		NNT WITHIN		? No		
WETLAND HYDROLOGY						WETLAND?				
Hydric Soils Present							<del></del>			
Normal Circumstance	ES? Yes			SIGNIFICAL	NTLY DIST	URBED: No		POTENTIA	L PROBLEM AREA? No	
		N OF	WETLA	<u> </u>			ID WEI		ALITY CRITERIA	
								201		

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

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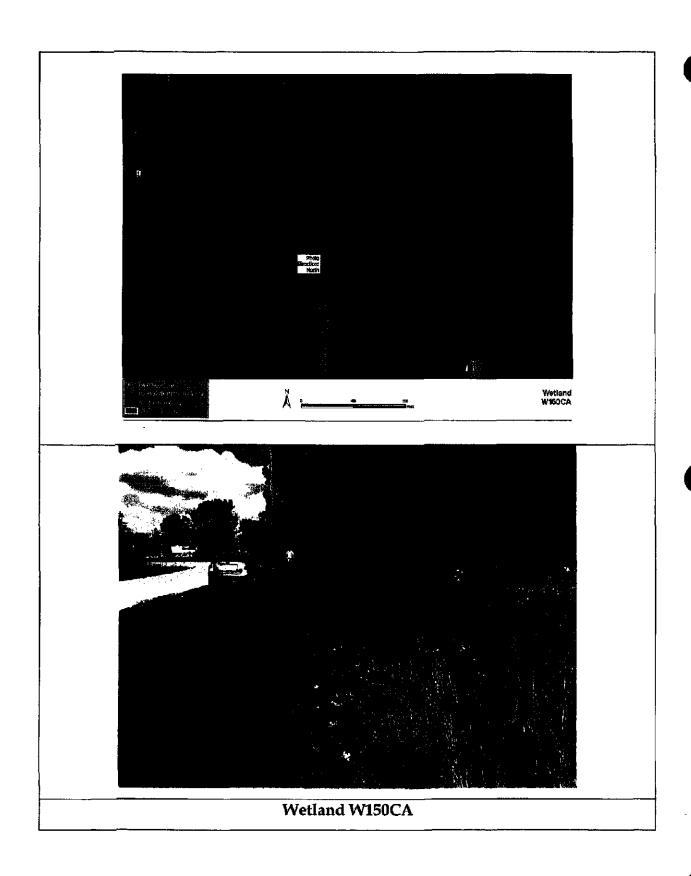
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

Site:		Rater(s): ////	Date:	
21	Metric 1. Wetland	Area (size).		
rasa 6 pata subt	Select one size class and assign score  >50 acres (>20.2ha) (5 ptc)  25 to <50 acres (10.1 to <20  10 to <25 acres (4 to <10 it)  3 to <10 acres (1.2 to <4ha)  0.3 to <3 acres (0.12 to <1.2  0.1 to <0.3 acres (0.04 to <0	2haj (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
	Metric 2. Upland	ouffers and surro	ounding land use.	
may 14 gds — Sub	2a. Calculate average buffer width. S WIDE. Buffers average 50m MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average 2b. Intensity of surrounding land use VERY LOW. 2nd growth or LOW. Old field (>10 years), MODERATELY HIGH. Resi	elect only one and assign score. O 1 (164ft) or more around wetland pe 25m to <50m (82 to <164ft) around 10m to <25m (32ft to <82ft) around verage <10m (<32ft) around wetlan Select one or double check and a older forest, prainte, savannah, wild shrubiand, young second growth to	o not double check.  rimeter (7)  wetland perimeter (4)  d wetland parimeter (1)  d perimeter (0)  verage.  life area, etc. (7)  orest. (5)  ervation tillage, new fallow field. (3)	
	5 Metric 3. Hydrolo	gy.		
Inax 3G pit. Gu	3e. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (take 3c. Maximum water depth. Select on 20,7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (1) 3e. Modifications to natural hydrologic	e water (3) a or stream) (5) 30 y one and assign score. (2)	b. Connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other hu Part of wetland/upland (e.g. forest) Part of riperian or upland corridor (  Duration inundation/saturation. Score of Semi- to permanently inundated/saturated (3)  X Seasonally inundated/saturated (2)  Y Seasonally inundated in upper 30cck and average.	), complex (1) (1) one or dbl check. aturated (4)
	None or none apparent (12)  Recovered (7)  Recovering (3)  Recent or no recovery (1)	Check all disturbances observed ditch (lite)	point source (nonstamwater) filling/grading road bed/RR track dredging other	
2	Metric 4. Habitat	Alteration and De	evelopment.	u
man 23 pts 4u	4a. Substrate disturbance. Score one  None or rione apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat atteration. Score one or descriptions	or double check and average.  one and assign score.		
200013	None or none apparent (9)  Recovering (3)  Recent or no recovery (1)	Check all disturbances observed mowing grazing clearouting selective cutting woody debris removal toxic pollutants	shrub/sapling remover herbaceous/aquatic bed removal sedimentation dredging faming nutrient onrichment	

Site: 1	Ra	ter(s):	Date:
substanting g	369		
	Matria E Chaniel Mar	Handa	
	_Metric 5. Special We	uanus.	
mau 16 pts. suitetali	Check all that apply and score as indicated.  Bog (10)		
	Fen (19)		
	Old growth forest (10)		
	Mature forested wetland (5)		
	Lake Erie coastal/tributary wetland- Lake Erie coastal/tributary wetland-	, <del>1</del> ,	•
	Lake Plain Sand Praines (Oak Ope		3)
	Relict Wet Praires (10)		
	Known occurrence state/federal thr	ealened or endangere	ed species (10)
	Significant migratory songbird/water	-	
,	Category 1 Welland, See Question	n i ciusatedve kaking:	(-1U)
	/ Metric 6. Plant comm	nunities, ir	nterspersion, microtopography.
max 20 pis. suotora		Vegetation Commu	
	Score all present using 0 to 3 scale.	C	Absent or comprises <0.1ha (0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises small part of wetland's
	Emergent		vegetation and is of moderate quality, or comprises a
	Forest	2	significant part but is of low quality  Present and either comprises significant part of welland's
	Mudflats	_	vegetation and is of moderate quality or comprises a small
	Open water		part and is of high quality
	Clher	3	Present and comprises significant part, or more, of wetland's
	6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality
,	[ ] High (5)	Nazrative Descripti	Ion of Vegetation Quality
	Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
	Moderate (3)		disturbance telerant native species
	Moderately low (2) Low (1)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp
	None (0)		can also be present, and species diversity moderate to
	6c. Coverage of invasive plants. Refer		moderately high, but generallywio presence of rare
	to Table 1 ORAM long form for list. Add		threatened or endangered app
	or deduct points for coverage Extensive >75% cover (-5)	high	A predominance of native species, with nonnative spp and/or disjurbance tolerant native spp absent or virtually
	Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
	Sperse 5-25% cover (-1)	<del></del>	the presence of rare, threatened, or endangered app
	Nearly absent <5% cover (6)		had
	Nbeent (1)   6d. Microtopography.	Mustick and Open	Water Class Quality Absent <0.1ha (0.247 acres)
	Score all present using 0 to 3 scale.	1	Low 0.1 to ~1ha (0.247 to 2.47 acres)
	Vegetated hummarcks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
•	Coarse woody debris >15cm (6in)	3	High 4ha (9 88 acres) or more
	Standing dead >25cm (10in) data Amphibian breeding pools	Microtopography C	Cover Scale
	ampliations aroundly boots	and orobodisbua c	Absent
		1	Present very small amounts or if more common
			of marginal quality
		2	Present in moderate amounts, but not of highest
		3	quality or in small amounts of highest quality  Present in moderate or greater amounts
		•	and of highest quality

GRAND TOTAL(max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the scoring introduces between westend categories raise fellowing address, into/seep ago state do unfatos/1911 most



SURVEY TYPE: Blue	Creek Win	d Farm	<del></del>		WETLAN	iD ID	No.: W150CA			
					ASSOCIATED STREAM ID NO: N/A					
DATE: 09/17/2009		CLIENT/P	ROJECT NAME: I	Heartland	and Wind LLC./ Blue Creek Wind Farm					
Investigators: Hook		STATE/Co	DUNTY: Ohio/V	an Wert		Rover File: RAH091709A.cor			QUAD NAME: Scott	
Huc 12 Code: 041000070	703	Townshi	IP: Union	<u></u>	Риото No.: 0					
WETLAND QUALITY: Low		<u>-</u>			Type: Palus Scrub Shrui					
	PLANT SPECIA	S		Sı	TRATUM		INDICATOR		PERCENT COVER	
1. Comus amomum					Shrub		Fac Wet		70 %	
2. Carex sp.					rbaceous		Fac Wet		30 % 10 %	
Salix nigra     Lysimachia nummula		Shrub erbaceous		Fac Wet + Obligate		20 %				
5.									%	
6.									%	
PERCENT OF DOMINANT S	PECIES THAT ARE	OBL, FACW, FA	CW+, FACW-, I	FAC+, OR I	FAC (EXCLUE	ING FA	AC-): 100			
VEGETATION REMARKS:	roadside ditch						<u></u>			
				Hydro	DLOGY					
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WATE	R: N/A (	in)		DE	PTH TO SATE	RATED	SOIL: >16 (in)			
DEPTH TO FREE WATER IN	Prr: None (	in)								
PRIMARY WETLAND INDE	SEC	CONDARY W	EFLANI	INDICATORS:						
Water Marks				FA	C Neutral T	est				
Drainage Patterns				Oth	her					
REMARKS: roadside dito	h									
				So	ILS					
Map Unit Name (Series	AND PHASE): Lat	ty silty clay, 0 pe	ercent slopes (fla	its)				DRAINA	GB CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):		Field	D OBSERVATION	s Confirm	і Маррео Тү	PE. IF P	NO, SOIL TYPE ENCOU	NTEREL	?	
			Proi	FILE DE	SCRIPT	ON				
DEPTH (INCHES)	Horizon	i i	MATRIX COLO MUNSELL MOI		1		E COLOR LL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-4	A		10YR 2/2						Silt Loam	
4+	В		2.5Y 4/1			_10YI	R 4/6		Clay Loam	
Hydric Soil Indicators										
Listed Hydri	с		Gleyed							
REMARKS:										
	** *		WETLA	ND DE	TERMIN.	ATIO	N			
Hydrophytic Vegetation	ON PRESENT? Yes		Is This Sam	PLING POL	NT WITHIN A	WETL	AND? Yes			
WETLAND HYDROLOGY P	RESENT? Yes		Is This An I	SOLATED V	WETLAND?	Yes	_			
HYDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANCE			SIGNIFICAN						em Area? No	
Dı	SCRIPTION	OF WETLA	AND CROS	SING T	YPES AN	DW	ETLAND QUA	ALITY	CRITERIA	
HIGH QUALITY WETLA	AND: no indication	on of stress or di	sturbance in we	tland or ad	ljacent area	- diver	se and mature veget	ation ty	oes - hydrologic and soil indicators	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

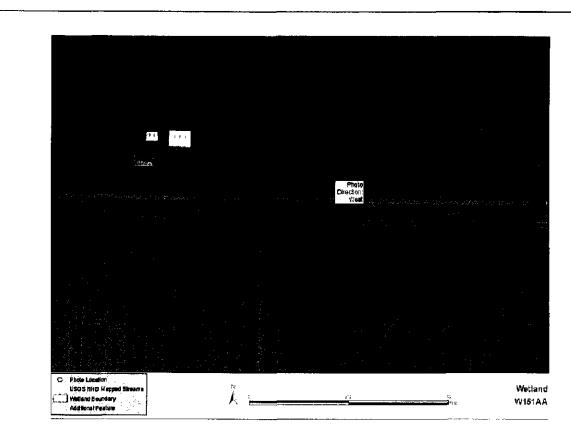
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or solls - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

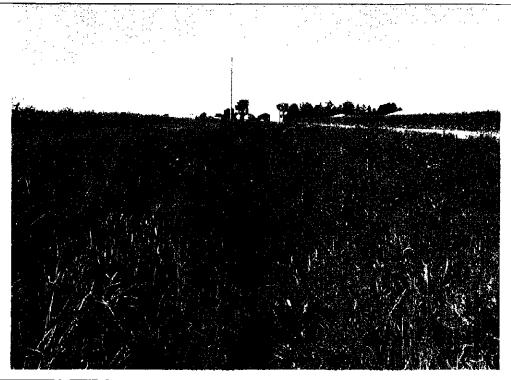
ORAM v. 6	5.0 Field Form Quantitative Rating		, , , , , , , , , , , , , , , , , , , ,			<del></del>
Site:	WISOCA	Rater(s):	EHOOK		Date:	9/17/09
O reacy & pita.	Metric 1. Wetland  Select one size cless and assign  >50 acres (>20.2he) (6  25 to <50 acres (4 to <  3 to <10 acres (1.2 to <  0.3 to <3 acres (0.12 to <  0.1 to <0.3 acres (0.04 to <)	score. pts) o <20.2ha) (5 pts) (0.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts) to <0.12ha) (1 pt)	). 0.02-au	·		
ч	4 Metric 2. Upland I	huffers and	surroundi	na land use.		
mex 14 pts.	2a, Calculate average buffer widt WIDE. Buffers average MEDIUM. Buffers average NARROW. Buffers aver VERY NARROW. Buffers aver VERY LOW. 2nd grow LOW. Old field (>10 ye MODERATELY HIGH. HIGH. Urban, industria	h. Select only one a 550m (164ft) or more age 25m to <50m (8 rage 10m to <25m ( ers average <10m (< use. Select one or o th or older forest, pra ers), shrubland, you Residential, fenced	nd sssign score. Do a sround wetland per 2 to <164ft) around v (32ft to <82ft) around v (32ft) around wetland double chack and swairle, savannah, wilding second growth fo pasture, park, conse	o not double check. Imetar (7) vetland perimeter (4) I wetland perimeter (1) I perimeter (0) erage. Ife area, etc. (7) rest. (5) rvation tiliage, new fallo	;; w field. (3)	
12	16 Metric 3. Hydrolo	av.				
rnag 30 pts.	High pH groundwater (3)  Precipitation (1)  Seasonal/intermittent si  Perennial surface water  3c. Maximum water depth. Select  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.  >60.4m (<15.7in) (1)  3e. Modifications to natural hydro	i) urface water (3) (lake or stream) (5) It only one and easig 6in) (2) logic regime. Score	3d. I in score. one or double chec	Connectivity. Score all to 100 year floodplaid Between stream/lessen Part of wetland/up Part of riparien or Duration inundation/satu Semil- to permane Regularly inundate Sessonally inundate Sessonally satural cand sverage.	n (1) ake and othe land (e.g. fo upland comi ration. Scor ntly inundate ed/saturated ited (2)	rest), complex (1) dor (1) re one or dbl chec ed/saturated (4 (3)
	None or none apparent Recovered (7) Recovering (3) Recent or no recovery (	ditch tile dike weir	urbences observed fer input	point source (nons filling/grading road bed/RR track dredging other	•	
12	28 Metric 4. Habitat	Alteration a	nd Develo	pment.		
max 20 phs.	subtobil  4a. Substrate disturbance. Score None or none apparent Recovered (3) Recovering (2) Recent or no recovery (4b. Hebitat development. Select Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one	(4) (1) only one and assign	<b>30019.</b>			
	None or none apparent Recovered (6) Recovering (3) Recent or no recovery (	(9) Check all dist mowing grazing clearcuite aslective	urbances observed ing o cutting ebris removal	shrub/sapling rem herbaceous/aquat sedimentation dredging faming nutrient enrichmen	ic bed remo	vel

ORAM v.	5.0 Field	Form	Quantitative	Rating

Site:	W150 CA	Rater(s): 72	Hook	Date: 9/17/09
	28  28 Metric 5. Special V	<i>N</i> ationde		,
	<del></del>		•	
ment 10 plus.	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar Lake Erie coastal/tributar Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state/ Significant migratory son Category 1 Watland. Se	(5) y wetland-unrestricted hydrogen y wetland-restricted hydrogen (Oak Openings) (10) federal threatened or en- gbird/water fowl habitat of a Question 1 Qualitative	dangered species (10) or usage (10) Rating (-10)	
131	ろ Metric 6. Plant co	nmunities, in	terspersion, microf	topography.
rngot 20 pts.	subtotal 6a. Wetland Vegetation Communi	•	Community Cover Scale	
•	Score all present using 0 to 3 scale	. 0	Absent or comprises <0.1ha (0.	
	Aquatic bed Emergent  Shrub	1	Present and either comprises si vegetation and is of moderate significant part but is of low qu	quality, or comprises a
	Forest Mudflats	2	Present and either comprises s vegetation and is of moderate	gnificant part of wettend's
	Open water Other Gb. horizontal (plan view) intersper	3 sion.	part and is of high quality Present and comprises significated vegetation and is of high quality	
	Select only one.			
	High (5) Moderately high(4) Moderate (3)	<u>Narrative</u> low	Description of Vegetation Quality  Low spp diversity and/or predor  disturbance tolerant native sp	ninance of normative or
	Moderately low (2) Low (1) None (0) 6c. Coverage of invasive plants. F		Native spp are dominant compo- although nonnative and/or dis can also be present, and spec moderately high, but generally	nent of the vegetation, turbance tolerant native spp des diversity moderate to y w/o presence of rare
	to Table 1 ORAM long form for list. or deduct points for coverage Extensive >75% cover (- Moderate 25-75% cover (-1)	high (-3)	A predominance of native speci and/or disturbance tolerant na absent, and high spp diversity the presence of rare, threaten	es, with nonnative spp tive spp absent or virtually and often, but not always,
	Nearly absent <5% cover Absent (1)	• •	nd Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to 3 scale		Low 0.1 to <1ha (0.247 to 2.47	acres)
	Vegetated hummucks/tu		Moderate 1 to <4ha (2.47 to 9.6	38 acres)
	Coarse woody debris >1	' '	(High 4ha (9,88 acres) or more	
	Standing dead >25cm (1 Amphibian breeding poo	•	graphy Cover Scale	
		o interesope	Absent	
		1	Present very small amounts or a of marginal quality	
•		2	Present in moderate amounts, to quality or in small amounts of	highest quality
<b>.</b>	<b>.</b>	3	Present in moderate or greater and of highest quality	amounts
	GRAND TOTAL (max 100 pts	<b>\$</b> )		

Refer to the most recent ORAM Score Calibration Report for the according breakpoints between wetland categories at the following address: http://www.epe.state.ch.us/dow/401/401.html





Wetland W151AA

						,				··	
SURVEY TYPE: Blue Creek Wind Farm				WETLAND ID NO.: W151							
D. 2016 (1999)				ASSOCIATED STREAM ID NO: N/A DJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm							
DATE: 09/16/2009	DJECT NAME:	Heartland	d Wind LL	C./ BI	ue Creek Wind	Farm					
INVESTIGATORS: R Hook STATE/COU				JNTY: Ohio/Van Wert			ROVER FILE: RAH091		09A.cor	QUAD NAME: Scott	
Huc 12 Code: 04100007	0703		TOWNSHIP:	Hoaglin			Рно	то No.:			
WETLAND QUALITY: Lov	W		•	WETLAND TYPE: Palustrine SUBTYPE: Emergent							
	PLANT SPE	CIES			TRATUM		INDICATOR		PERCENT COVER		
Alisma subcordatum				Herbaceous				Obligate		10 %	
Leersia oryzoides     Scirpus validus						erbaceous erbaceous		Obligate Obligate	+	50 % 10 %	
Schipus vantus     Echinochloa muricata	a					erbaceous		Fac Wet +		20 %	
5. Eleocharis obtusa						erbaceous		Obligate		10 %	
6. Scirpus sp.					He	erbaceous		Fac Wet	Fac Wet 10 %		
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, F.	ACW, FAC	W+, FACW-,	FAC+, OR I	FAC (EXCLUE	DING F	AC-): 100			
Vegetation Remarks:	roadside ditch										
Hydrology											
RECORDED DATA?			р	escribe:							
DEPTH OF SURFACE WAT	rer: N/	A (in)		···	Di	PTH TO SAT	JRATEL	SOIL: >16 (in)			
DEPTH TO FREE WATER I	N Pir: No	ne (in)									
PRIMARY WETLAND IND	CATORS:	<del></del>		SECONDARY WETLAND INDICATORS:				INDICATORS:			
Water Marks				Oxi Root Channels							
REMARKS: roadside dit	ich										
					So	ILS					
MAP UNIT NAME (SERIE	s and Phase):	Latty silty	clay, 0 pero	ent slopes (fi	ats)				DRAINA	GE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP)	):		FIELD (	OBSERVATION	NS CONFIRM	1 MAPPED T	PE. IF I	No, Soil Type Enc	OUNTERE	o?	
				Pro	FILE DI	SCRIPT	ION				
DEPTH (INCHES)	Horizo	ON		IATRIX COL UNSELL MO	•		TLE COLOR SELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, BTC.		
0-9	А			5Y 3/1	7.5YR 4/4		4/45%		Silt Loam		
9+	В			5GY 2.5/2		Oxidized Rhizosp			spheres Silt Loam		
Hydric Soil Indicator	(§:	•				,					
Listed Hydric C				Gleyed							
Remarks:											
WETLAND DETERMINATION											
HYDROPHYTIC VEGETATION PRESENT? Yes				15 This Sampling Point Within a Wetland? Yes							
WETLAND HYDROLOGY PRESENT? Yes				Is This An Isolated Wetland? No							
HYDRIC SOILS PRESENT?											
NORMAL CIRCUMSTANCES? Yes				SIGNIFICANTLY DISTURBED: No			POTENT	Potential Problem Area? No			
D	VETLAN	AND CROSSING TYPES AND WETLAND QUALITY CRITERIA					CRITERIA				
HIGH QUALITY WETL	AND: no indic	ation of st	ress or distr	urbance in w	etland or ac	ljacent area	- diver	se and mature veg	gelation ty	pes - hydrologic and soil indicators	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



# ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue Creek					WETLAND ID No.: U151AA					1
DATE: 09/16/2009 CLIENT/PROJECT NAME: He					ASSOCIATED WETLAND ID No: W151AA rtland Wind LLC./ Blue Creek Wind Farm					
							NAME: Scott			
Huc 12 Code: 04100007	0703		Township: Hoaglin	<del>.</del>	<del></del>	Рнот	O NO.:			
WETLAND QUALITY: N/A	A			WETLAND	Type: N/A	_				
	·				YPE: Upland					
	PLANT SPEC	IES		\$1	STRATUM INDIC				PERCENT COVER	
1. Daucus carota					rbaceous		Upland		10 % 20 %	
Trifolium repens     Festuca sp.					rbaceous rbaceous	-	Fac Up - Fac Up	40 %		
4. Plantago anceolara					rbaceous		Fac Up		20 %	
5.								%		
6.				<u> </u>					<u>%</u>	
PERCENT OF DOMINANT	SPECIES THAT AR	E OBL, FA	ACW, FACW+, FACW-	-, FAC+, or i	AC (exclui	DING FA	<b>·C-)</b> : 0			
VEGETATION REMARKS;										
				HYDRO	LOGY					
RECORDED DATA?			Describe:							
DEPTH OF SURFACE WAT	TER: N/A	(in)		DE	ртн то бат	URATED	<b>SOIL:</b> (in)			
DEPTH TO FREE WATER I	N Pit: None	e (in)								
PRIMARY WETLAND IND	ICATORS:			Sec	ONDARY W	ETLAND	INDICATORS:			
None										
Remarks:				•		_				
				So	ILS	<del>,</del>	· <del> </del>			
Map Unit Name (Serie	s and Phase): L	atty silty	clay, 0 percent slopes (	flats)				DRAINAC	E CLASS: Very Poorly drained	
TAXONOMY (SUBGROUP)	);		FIELD OBSERVATIO	NS CONFIRM	MAPPED T	YPE. IF N	TO, SOIL TYPE ENC	UNTERED?		
			Pro	OFILE DE	SCRIPT	ION				
Depth (Inches)	Horizo	N	MATRIX CO (MUNSELL M	<b>-</b>	MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-9	A		10yr 3/4					Silt Loam		
9+	В		10yr 4/2		10үг 5/6 30%		/6 30%	Silty Clay Loam		
Hydric Soil Indicator	RS:				<u> </u>					
					·					
Remarks:		<del></del>								
			WETL	AND DE	TERMIN	ATIO	N			
Hydrophytic Vegetat	ION PRESENT? N	io	1	AMPLING POR						
					ATED WETLAND? N/A					
HYDRIC SOILS PRESENT? Yes					MARINE T TO SUPERING LANGE					
Normal Circumstance			SIGNIFICA	NTLY District	DISTURBED: Yes POTENTIAL PROBLEM AREA? No					
		NG TYPES AND WETLAND QUALITY CRITERIA								
ע	POCKILIIO	14 OT 1	ARITMIND CKO	SOUNG I	ILES W	11 TY	ETLAND QU	MLLI	CMIENIA	
HIGH QUALITY WETT are characteristic of the									es – hydrologic and soil indicate served.	ors

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

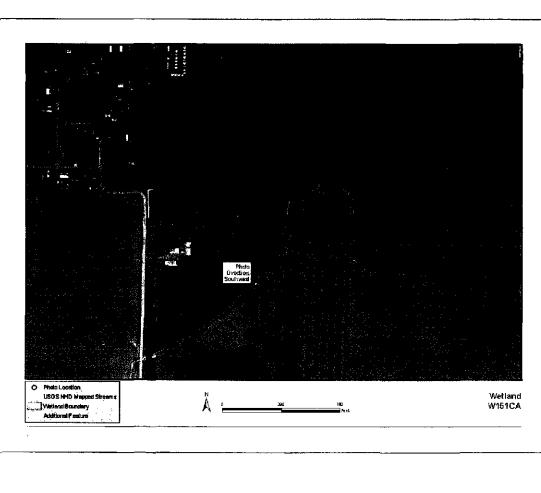
LOW QUALITY WETLAND; severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

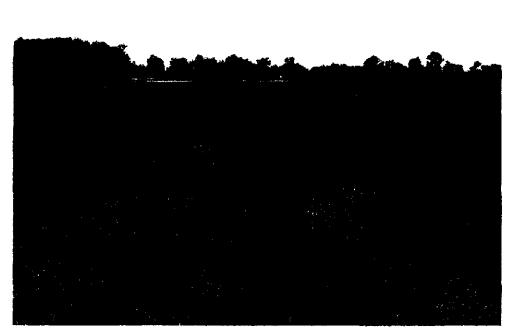
ORAM	v. 5.0 Flei	Form C	Quantita	tive Ratin	<u> </u>		<del></del>				<del> </del>				<del></del>
Site	: W	015	7 A	A		Ra	ter(s):	Rb	600 K			D	ate:	4,	16/09
max 6	2 pts. subtot	_	24 25 26 3 20 0	size class 50 acres ( 5 to <50 a 0 to <25 a to <10 ac 3 to <3 ac 1 to <0.3	etiand and assign ( >20.2ha) (6) cres (10.1 to cres (4 to <1 cres (1.2 to <1 cres (0.12 to acres (0.04 to (0.04ha) (0 p	ocore, pts) <20.2ha (0.1ha) ( 4ha) (3 p <1.2ha) to <0.12l	a) (5 pta) 4 pts) vts) (2pts)	).	10	<b>-</b> e+	<b>e</b>			•	
	/ 3	$\Box_{\mathbf{M}_{\ell}}$	etric	2. U	nland I	buffe	rs and	d surr	oundi	ina	land u	SA.			
mex \$4		=== 2a.	Calcula V V V Intensit	the average in the property of surrous expenses to the property of surrous expenses to the property to the pro	e buffer widt lers average Buffers aver Buffers aver ROW. Buffe Inding lend I. 2nd growl field (>10 ye	h. Select of 50m (10 age 25m rage 10r ers avera use. Se th or olde ars), shr Residen	st only one 64ft) or mo 1 to <50m ( m to <25m age <10m ( slect one of ar forest, pl ubland, you	and assign re eround v 82 to <164 (32ft to <1 <32ft) arou double ch airle, sava ung second pasture, p	n score. Di welland po it) around 32(t) aroun md wellan ock and a nnah, wild d growth fo park, cons	Do not erimete wetlar od wetlar od period pe	double check er (7) nd perimeter and perimete meter (0) s. ea, etc. (7) (5) on tillage, ne	k. (4) er (1)	ield. (3)	1	
	Y 1	M	etric	3. H	ydrolog	gy.									
mex 30		3e. 3c.	Source H CO V S S Maximu	e of Water ligh pH groun recipitation easonal/in erennial sum water of 0.7 (27.6in .4 to 0.7m 0.4m (<15	r. Score all is undwater (5 sidwater (3) or (1) stermittent as urface water (epth. Select) (3) (15.7 to 27.5	that applications in the control of	ater (3) stream) (5 ne and ass	gn score.	<b>3d</b> .	Ourel	Part of wette Part of ripart on inundation Serni- to per Begularly in Seasonally I Seasonally I	odptain (* ream/take and/uptan tan or upt m/saturati manenth undated/: inundated	1) and off d (e.g. 1 lend con ion. So y inunda saturate f (2)	forest ridor ore o sted/s ed (3)	ne or dist chec saturated (4)
		<b>36.</b>		ione or no lecovered lecovering	ne apparent (7)	(12) C	: <del></del>				point source filling/gradin road bed/RF dredging	g	yywater	<b>)</b>	
						L		aler input			other	-	<del></del>		
enack 26	Pipis. subto	49. 4b.	Substin	ate disturbione or no lecovered lecovering lecent or r developm lecellent (7 for (5) food (5) foderately (air (3) lpor to fair loor (1) t alteration	(2) to recovery (sent. Select ) (6) good (4) (2) . Score one	one or (4)  1) only one	double che a and assiç	ck and average	erage.	•	shrub/sapkin	ng remova			٦ .
	aubiotal ti	fs page		<b>Lecovering</b>		(1)	grazing Clearci selectiv woody	ĺ	oval	 	herbaceous sedimentss Tredging ferming nutrient enri	/aquatic I	sed rem	oval	

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ORAM v. 5.0 Field Form Quantitative Rating	·		
Site: WOIST AA R	ater(s):	2HOOK_	Date: 9/16/09
mex 10 pts. **ubtotal **text page*    15	etland-unrestricted etland-restricted hy ik Openings) (10) eral threatened or a ti/water fowl habita	rdrology (5) Indangered species (10) It or usage (10)	
2 17 Metric 6. Plant comm	nunities, i	nterspersion, m	icrotopography.
mex 20 pts. subtotal 6a. Wetland Vegetation Communities.	· ·	on Community Cover Scale	
Score all present using 0 to 3 scale.	0	Absent or comprises <	).1ha (0.2471 acres) conliguous area
Aquatic bed	1		prises small part of wetland's
<b>Emergent</b>		<b>1</b> -	noderate quality, or comprises a
Shrub		significant part but is	
Forest	2	•	prises significant part of wetland's
Mudfiels		• -	noderate quality or comprises a small
Open water	<del></del> -	part and is of high qu	
Other	3	1 '	significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion	L	vegetation and is of h	ign quality
Select only one.	AI		The state of
High (5)		e Description of Vegetation	
Moderately high(4)	law:		r predominance of nonnative or
Moderate (3)		disturbance tolerant n	
Moderately low (2)	mod		nt component of the vegetation,
Low (1)		•	nd/or disturbance tolerant native spp
None (0)		· ·	and species diversity moderate to
6c. Coverage of invasive plants. Refe			generally w/o presence of rare
to Table 1 ORAM long form for list. Ad	· · · · · · · · · · · · · · · · · · ·	threatened or endang	
or deduct points for coverage	· high	■ = =	ve species, with nonnative spp
Extensive >75% cover (-5)			erant native sop absent or virtually
Moderate 25-75% cover (-3)			diversity and often, but not always,
Sparse 5-25% cover (-1)		i the presence of rare.	threatened, or endangered sop
Nearly absent <5% cover (0)			**-
Absent (1)		and Open Water Class Cun	
6d. Microtopagraphy.		Absent <0.1ha (0.247 a	
Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247	
Vegetated hummucks/tussuo		Moderate 1 to <4ha (2,	
Coarse woody debris >15cm		High 4ha (9.88 acres) o	r more
Standing dead >25cm (10in)			
Amphibian breeding pools	Microto	pography Cover Scale	
_ ·	0	Absent	
	1		unts or if more common
		of marginal quality	
	2		nounts, but not of highest
			ounts of highest quality
·	3	Present in moderate or	_
/7 GRAND TOTAL (max 100 pts)		and of highest quality	
1 1 1 (			•

Refer to the most recent CRAM Score Calibration Report for the scoring breakpoints between wellend estagories at the following address: http://www.epa.atata.ok.us/daw/401/401.html
last revised 1 February 2001 jjm





Wetland W151CA



SURVEY TYPE: Blue	e Creek W	ind Farm	SURVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: W151CA				
					ASSOCIAT	ed Stre	AM ID NO: <b>N/A</b>					
DATE: 09/17/2009		CLIENT	Project Name:	Heartland	Wind LL	C./ Blu	e Creek Wind F	arm				
Investigators: Hook		State/	COUNTY: Ohio/	Van Wert		Rove	R File: RAH09170	9A.car	QUAD NAME: Scott			
Huc 12 Code: 041000070	0703	Towns	HIP: Union		Рното No.: 0							
WETLAND QUALITY: LOW	Y			WETLAND SUBTYPE: I	Type: Palus Emergent	trine						
	PLANT SPE	CIES	-	ST	RATUM		INDICATOR		PERCENT COVER			
1. Typha latifolia				He	rbaceous							
2. Leersia oryzoides					rbaceous							
Scirpus validus     Ludwigia palustris					rbaceous rbaceous	-	Obligate Obligate	-	30 %			
5. Typha angustifolia					rbaceous _		Obligate	<del>                                     </del>	20 %			
б.									%			
Percent of Dominant Species that are OBL, FACW, FACW+, FACW-, FAC+, or FAC (excluding FAC-): 100												
Vegetation Remarks:												
				HYDRO	DLOGY							
RECORDED DATA?			DESCRIBE:									
DEPTH OF SURFACE WAT	rer: N/	A (in)		DEI	ртн то <b>S</b> аті	JRATED :	SOIL: >16 (in)					
DEPTH TO FREE WATER I	n Pit: Noi	ne (in)										
PRIMARY WETLAND IND	ICATORS:			Sec	XONDARY W	ETLAND	INDICATORS:					
Water Marks				FA	C Neutral T	est						
Drainage Patterns				Oxi	i Root Chan	nels						
REMARKS: dry creeek channel												
Soils												
Map Unit Name (Serie	s and Phase):	Latty silty clay, 0	percent slopes (f	lats)				DRAIN	AGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?												
			Pro	FILE DE	SCRIPT	ION						
DEPTH (INCHES)	Horizo	ON	MATRIX COI (MUNSELL MO			MOTTLE COLOR MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.			
0-12+	В		10YR 4/1			10YR 4/6 25%		Clay Loam				
HYDRIC SOIL INDICATOR												
		1	Gleved					T				
	Listed Hydric Gleyed											
Remarks:												
					_							
			WETLA	ND <b>D</b> E	TERMIN	ATIO	N					
Нуркорнутіс Убсктат	ton Present?	Yes		AND DE								
HYDROPHYTIC VEGETAT WETLAND HYDROLOGY		Yes	Is This SA		NT WITHIN	A WETLA						
	Present? Yes	Yes	Is This SA	MPLING POD	NT WITHIN	A WETLA						
WETLAND HYDROLOGY	Present? Yes ? Yes	Yes	Is This Sa Is This An	MPLING POD	NT WITHIN . Wetland?	A WETLA	AND? Yes	AL PROB	LEM AREA? No			
WETLAND HYDROLOGY HYDRIC SOILS PRESENT NORMAL CIRCUMSTANCE	Present? Yes ? Yes Tes? Yes		IS THIS SA IS THIS AN SIGNIFICA	MPLING POD I ISOLATED V	NT WITHEN, WEILAND?	A WETLA	AND? Yes					

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



#### ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek							U151CA		
						ASSOCIATED WETLAND ID NO: W151CA				
DATE: 09/17/2009			CLIENT/PI	ROJECT NAME:	Heartlaı	nd Wind LL	C./ Blue Cr	eek Wind Fa	rm	
INVESTIGATORS: Hook			STATE/CO	COUNTY: Ohio/Van Wert		QUAD NAM	E: Scott			
Huc 12 Code: 04100007	0703		Townshi	P: Union	Рното No.:		:			
WETLAND QUALITY: N//	4		····			ID TYPE: N/A E: Upland	<u> </u>			
	PLANT SPE	CIES				STRATUM	In	DICATOR	PERCENT COVER	
1. Festuca rubra					ŀ	Ierbaceous		Fac Up	50 %	
2. Daucus carota						Ierbaceous		Upland	10 %	
3. Bromus inermis						lerbaceous		Upland	20 %	
4. Hibiscus trionum 5.					· · · · · · ·	Ierbaceous		Upland	<u>20 %</u> %	
6.									%	
PERCENT OF DOMINANT	Species THAT A	RE OBI	FACW FA	CW+ FACW-	FAC+ OF	FAC (syctus	INC FAC-)- (	<del></del>		
VEGETATION REMARKS:		<u>,</u>			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		<u> </u>			
					Hydr	OLOGY				
RECORDED DATA?				Describe:						
DEPTH OF SURFACE WAT	rer: N/	A (in)			E	EPTH TO SATU	RATED SOIL:	>16 (in)		
DEPTH TO FREE WATER	IN PIT: No	ne (in)								
PRIMARY WETLAND IND	ICATORS:				s	BCONDARY W	ETLAND INDIG	CATORS:		
None										
Remarks:										
Soils										
MAP UNIT NAME (SPRIE	s and Phase):	Latty silt	y clay, 0 pe	rænt slopes (f	lats)				DRAINAGE CLASS: Very Poorly drained	
TAXONOMY (SUBGROUP)	):		FIELD	OBSERVATIO	ns Confir	IM MAPPED TY	PE, IF NO, SO	IL TYPE ENCOU	INTERED?	
				Pro	FILE D	ESCRIPT	ION			
DEPTH (INCHES)	Horize	DN	,	MATRIX COE MUNSELL MO		MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-12	A			10yr 3/3					Silt Loam	
12+	В			10yr 3/3					Silt Loam	
HYDRIC SOIL INDICATOR	RS:						· • • · · · · · · · · · · · · · · · · ·			
Remarks:										
				WETLA	ND DI	ETERMIN.	ATION			
HYDROPHYTIC VEGETAT	ION PRESENT?	Nσ		Is This Sa	MPLING P	OINT WITHIN	WETLAND?	No		
WETLAND HYDROLOGY				T ''		WETLAND?				
Hydric Soils Present							.,			
Normal Circumstance				SIGNIBIOA	NTI V Drem	TIPRETY No.		POTENTTA	PROBLEM AREA? No	
		ON OF	WETLA	- <del> </del>		STURBED: No POTENTIAL PROBLEM AREA? NO S TYPES AND WETLAND QUALITY CRITERIA				
,				<del></del>		•	•			
HIGH QUALITY WETI	.AND: no indic	ation of	stress or dis	sturbance in w	etland or	adiacent area	<ul> <li>diverse and</li> </ul>	mature veget	ation types – hydrologic and soil indicators	

HIGH QUALITY WETLAND; no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

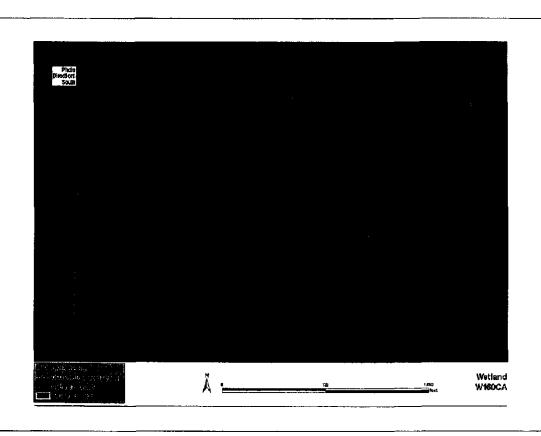
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

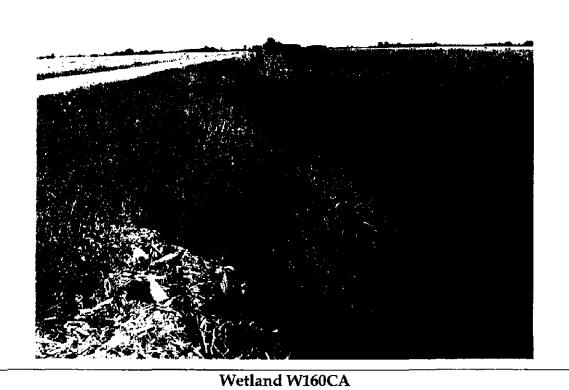
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 F	eld Form	Quantitative Ratin	8	1	,	. <u></u>		<del></del>
Site: V	<u> 1151</u>	CA	·	Rater(s):	P. HOOU	<u></u>	Date: 9	17/09
max 6 pts. see		25 to <50 s 10 to <25 s 3 to <10 ac 25 to <3 ac 0.1 to <0.3		9. J.2ha) (5 pts) ha) (4 pts) (3 pts) tha) (2pts)	_	acre.	•	
max 14 pts. su	biotel 2a.	Calculate average WIDE. But MEDIUM. NARROW. VERY NAR- Intensity of sumo VERY LOW. Old MODERAT	- buffer width. S ffers average 50n Buffers average; Buffers average; ROW. Buffers a unding land use. V. 2nd growth or field (>10 years), 'ELY HIGH. Resi	ielect only one a n (164ft) or mon 25m to <50m (8 a 10m to <25m verage <10m ( Select one or older forest, pra , shrubland, you idential, fenced	nd assign score. a around wetland 2 to <164ft) aroun (32ft to <82ft) aro (32ft to <82ft) aro double check and lirle, savannah, w ng second growth	d wetland perimete und wetland perime and perimeter (0) average. ikilife area, etc. (7) forest. (5) seervation tiliage, ne	ck. r (4) ter (1)	
	Se.	Other group Precipitation Seasonal/III Perennial Seasonal/III Perennial Seasonal/III Perennial Seasonal/III Perennial Seasonal/III Perennial Seasonal/III Perennial Seasonal S	or. Score all that a cundwater (5) ndwater (3) or (1) ntermittent surface surface water (tak depth. Select on n) (3) n (15.7 to 27.6in) 5.7in) (1) natural hydrologic ine apparent (12)	e wester (3) e or stream) (5) ly one and assig (2) cregime. Score Check all dist dike wair	3d jn score.	Between at Part of wet Part of ripe Part of ripe Duration inundati Semi- to pe Regularly in Seasonally Seasonally ack and average.	podplain (1) pream/lake and other in preamle or uplend confidor preamle or uplend confidor preamle or uplend (3) preamle of (2) preamle or upper 30 pr	t), complex (1) (1) ne or dbl chec saturated (4
6 15 max 20 pts. 6s.	tototal 4a	Recovered  Recovering  Recent or	pance. Score one one apparent (4) (3) (2) (4) (5) (6) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (6) (7) (7) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	one and assign	k and average.  d average.  turbances observe	odshrub/sapli		

Site: \	51 CA	Rater(s):	Hoo	<u> </u>	Date: 9/11/09
subtotal first pe	Metric 5. Special Check all that apply and score all Bog (10) Fen (10) Old growth forest (10)	as Indicated.		·	
	Mature forested wets Lake Erle coastal/trib Lake Erle coastal/trib Lake Plain Sand Prail Relict Wet Prairies (1 Known occurrence st	and (5) outary wetland-unreatri outary wetland-restricte (ries (Oak Openinge) ( (IO) outate/federal threatened songbird/water fowl ha	ed hydrolo 10) I or endar abitat or u	igg (5) igered species (10) isage (10)	
1 20	7 Category 1 Wetland.  Metric 6. Plant o	See Question 1 Qual communities:		*	rotopography.
mex 20 pts. aubtotal	6a. Wetland Vegetation Comm		atation C	ommunity Cover Scale	
	Score all present using 0 to 3 s	cale.	0		(0.2471 acres) contiguous area
	Aquatic bad Emergent		1	Present and either comprise	es small part of welland's trate quality, or comprises a
	Shrub			significant part but is of lo	- · ·
	Forest		2	<u></u>	es significant part of wetland's
	Mudflats		-	•	rate quality or comprises a small
	Open water			part and is of high quality	rate desirt or combines a strair
	Other	<del></del>	3		ificant part, or more, of wetland's
	6b. horizontal (plan view) Inter-	thorsion	3	vegetation and is of high	
	Select only one.	ahet sevi t		Vegetation and is of high	igalia.
		N		scription of Vegetation Qua	Allen -
	High (5) Moderately high(4)	14GI	low Lie	Low spp diversity and/or pre	
	Moderate (3)		IUTT	disturbance tolerant native	
	Moderately low (2)	****	mod		
	Low (1)		HIVU	Native app are dominant co	disturbance tolerant native app
	None (0)				species diversity moderate to
	8c. Coverage of invasive plant	e Dafor		moderately high, but gene	
	to Table 1 ORAM long form for			threatened or endangered	•
	or deduct points for coverage		high	A predominance of native s	
	Extensive >75% cov		: mSt.:	-	it native app absent or virtually
	Moderate 25-75% co	• •		1	raity and often, but not always,
	2 Cm E OEO/ Acres				staned, or endangered app
	Nearly absent <5% o			UIS PIGERIUS OF ICE, WISE	TO 1841 OF STORE ALCOHOL SPP
	Absent (1)		المحد فعالا	Open Water Class Quality	
	6d. Microtopography.		0	Absent <0.1ha (0.247 acres	7
	Score all present using 0 to 3 s	cale	1	Low 0.1 to <1ha (0.247 to 2.	<del></del>
	Vegetated hummuck		2	Moderate 1 to <4ha (2.47 to	<del></del>
	Coarse woody debris		3	High 4ha (9.88 acres) or mo	
•	Standing dead >25cr			[]	
	Amphibien breeding			uphy Cover Scale	
	Paripinian Decoming	pools mics		Absent	
		*****	0	Present very small amounts	or if more common
	•		•	· ·	ve a more commun
		-	2	of marginal quality	de Bust mat of blobant
			2	Present in moderate amoun	<del>-</del>
			3	quality or in small amount	
			3	Present in moderate or grea	
\			_	and of highest quality	

Refer to the most recent CRAM Score Calibration Report for the acceling breefspoints between wetland categories at the following address: http://www.eps.atate.ch.us/daw/401/401.html
last revised 1 February 2001 jjm







SURVEY TYPE: Blu	e Creek W	ind Farm					io.: W160CA		
	<del></del>						MID No: <b>5160C</b>		
DATE: 09/16/2009		CLIENT	PROJECT NAME:	Heartlan	d Wind LL	C./ Blue	Creek Wind Fan	m	
INVESTIGATORS: D.Wes	t, M.Nechvatal	STATE/	COUNTY: Ohio/I	r/Paulding		ROVER	File: R091609ADW	V.com	Quad Name: Latty
Huc 12 Code: 04100007	0701	Towns	HIP: Latty			Рното	No.: 160C1W, 160C	2B	
WETLAND QUALITY: LOS	N				TYPE Palus Emergent	strine		•	
	PLANT SPE	CIES		S'	TRATUM		INDICATOR		PERCENT COVER
Scirpus atrovirens					erbaceous		Obligate		40 %
Polygonum pennsylu     Typha angustifolia	anica		····		erbaceous		Fac Wet		30 % 40 %
4.			· ··	Π(	erbaceous		Obligate		%
5,									%
6.									%
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 100									
Vegetation Remarks:	Roadside ditch	ı, parallel to existi	ng road, perpen	dicular to o	ollector line,	flows into	5160CA		
			· · · · · · · · · · · · · · · · · · ·	HYDR	OLOGY				<u> </u>
RECORDED DATA?			Describe:						
DEPTH OF SURFACE WAT	ter: N/	A (in)		Di	epth to Sati	JRATED SC	OIL: 0 (in)		
DEPTH TO FREE WATER I	N Ptt: 0						· · · · · · · · · · · · · · · · · · ·		
PRIMARY WETLAND IND	ICATORS:		····	Se	CONDARY W	etland In	NDICATORS:		
Drainage Patterns	<del></del> .			FA	C Neutral T	est		ļ	
Saturated Upper 12in				Lo	cal Soil Surv	rey			
REMARKS: Roadside ditch, parallel to existing road, perpendicular to collector line, flows into \$160CA									
Soils									
MAP UNIT NAME (SERIE	s and Phase):	Wabasha silty clay	/ loam, moderat	ely shallow				JRAINA	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	:	Fire	LD OBSERVATION	NS CONFIRM	MAPPED TY	PE. IF NO	SOIL TYPE ENCOUN	TERED	?
			PRO	FILE DI	ESCRIPTI	ION			
DEPTH (INCHES)	Horizo	ON	MATRIX COL (MUNSELL MO			IOTTLE COLOR UNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-7	A		10YR 5/2		1	10% 5YR	4/4		Silt Loam
7-12+	В		10YR 5/1		<u> </u>	40% 10Y			Silty Clay Loam
	<u> </u>		10111.0/1		+	20/0 1011	,		July was solded
Hydric Soil Indicator							<u></u>		
Listed Hyd			Gleyed		T			T	
Remarks:		_1			1		···		
			WETLA	ND DE	TERMIN.	ATION	<u> </u>		
Hydrophynic Vegetat	TON PRESENT?	Yes	Is This Sa	MPLING PO	INT WITHIN	4 WETLAN	D? Yes		
WETLAND HYDROLOGY	PRESENT? Yes		Is This An	ISOLATED	WETLAND?	No			
HYDRIC SOILS PRESENT	Yes								
NORMAL CIRCUMSTANC	ES? Yes		SIGNIFICAL	NTLY DISTU	RBED: No		POTENTIAL	Probl	EM AREA? No
D	ESCRIPTIO	ON OF WETL	AND CROS	SING T	YPES AN	ND WE	TLAND QUA	LITY	CRITERIA
I HOLL COMMITTERS	TALANT IN INCIO	and or suess of	anstrujuance in W	CHAIR OF A	ujacent area	- miverse	and mature vegeta	aouty)	pes - hydrologic and soil indicators

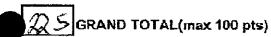
are characteristic of the specific community type - provides suitable habitat for wildlife - high quality pereruial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

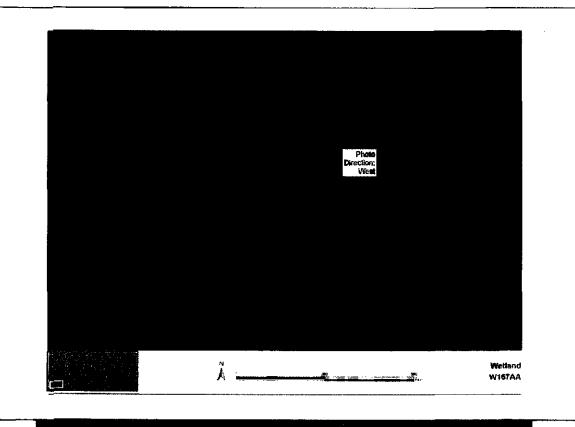
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or dilching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Upperform we and a normal seg-				
Site: WILEC	CP	Rater(s):	1 Section -	Date:
22	Metric 1. Wetland	Area (size).		
mex 6 pts. Subtotel	Select one size class and assign score.  >50 sares (>20.2ha) (6 pls)  25 to <50 acres (10.1 to <20.1 to <20.1 to <50 acres (4 to <10.1 ha  3 to <10 acres (1.2 to <4ha) (-20.1 to <0.3 to <3 acres (0.12 to <1.2 ha)  0.1 to <0.3 acres (0.04 to <0.1 acres (0.04 to <0.1 acres (0.04ha) (0 pis)	2ha) (5 pts) ) (4 pts) 3 pts) a) (2pts)		
	Metric 2. Upland b	ouffers and surro	unding land u	se.
max 14 pts. subtotal	MEDIUM. Buffers average 2:  NARROW. Buffers average "  VERY NARROW. Buffers average "  2b. Intensity of surrounding land use.  VERY LOW. 2nd growth or of LOW. Utd field (>10 years), so MODERATELY HIGH. Resident average and surrounding land use.	(164ff) or more around wetland per 5m to <50m (82 to <164ff) around w 10m to <25m (32ff to <82ff) around erage <10m (<32ff) around wetland	ometer (/) vetland perimeter (4) vetland perimeter (1) perimeter (0) erage. fe area, etc. (7) rest. (5) rvation tillage, new fallow field.	(3)
7 7 11.5	Metric 3. Hydrolog	TV.		
mau 30 pts. Bubtoled	3a. Sources of Water. Score all that a High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface Perennial surface water (lake 3c. Maximum water deptis. Select only >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2  **O.4m (<15.7in) (1) 3a. Modifications to natural hydrologic None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	opty. 3b  water (3) or stream) (5) one and assign score.  2) regime. Score one or double check Check all disturbances observed ditch tile ditce	Part of wetland/upland ( Part of riparien or uplan Duration inundation/saturatio Semi- to permanently in Regularly inundated/sat Seasonally inundated ( Scooonally saturated in cand average.  point source (nonstorm filling/grading road bed/RR track	nd other human use (1) (e.g. forest), complex (1) d contidor (1) in. Score one or dbl check, undated/saturated (4) burated (3) 2) upper 30cm (12in) (1)
20 5	Metric 4. Habitat A		other	
max 20 ots. sublok <u>ai</u>	4a. Substrate disturbance. Score one  None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only of Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat atteration. Score one or do	់ ហាម អូមហើ ដូននថ្ងៃ៣ ឧបលាម.		
20-5	None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sap/ing removal herbaceous/aquatic bed sedimentation dredging farming nutrient enrichment	nemoval

Site: JJ DO 🗻	Rai	ter(s):		Date:
	: 5. Special Wet	lands.		
Bo Fe Ok Mn La La La Kr	g (10) h (10) d growth forest (10) stare forested welland (5) ke Eric coastel/tributery wetland-t ke Eric coastel/tributery wetland-t ke Plain Sand Pratries (Oak Oper elict Wet Praires (10) hown occurrence state/federal thre gnificant migratory songbird/water ategory 1 Wetland. See Question	restricted hydrology (5) hirtigs) (10) catened or endangered s fowt habitat or usage (10	pecies (10) ))	
			erspersion, micr	otopography.
· ·	Vegetation Communities.	Vegetation Community		1944
<u></u> ~~	isant using 0 to 3 scale. qualic bed nergent	1	Absent or comprises <0.1ha (0.2 Present and either comprises am vegetation and is of moderate of	all part of welland's
	nrub		significant part but is of low qua	
- المنافقة	orest uciliats	2	Present and either comprises sig vegetation and is of moderate of	nificant part of wetland's
	oen water		part and is of high quality	joon or comprises a sinsi
<u>.</u>	her	3	Present and comprises significan	•
	tal (plan view) Interspension.		vegetation and is of high quality	<u> </u>
Select only		Massalfer Daniel-Mass	- 436	
<del></del>	gh (5) oderately high(4)	Narrative Description	Low spp diversity and/or predomi	inspec of pengative or
	oderate (3)	Ю	disturbance tolerant native spe-	
9744471	oderately low (2)	mod	Native spp are dominant compon	
	ow (1)		aithough connetive and/or distu	•
<b>≥</b> №	one (0)		can also be present, and speci-	es diversity moderato to
6c. Coverag	ge of invasive plants. Refer		moderately high, but generally	v/o presence of rare
	RAM long form for list. Add		threatened or endangered spp	
	pints for coverage	high	A predominance of native specie	• •
<del></del>	densive >75% cover (-5) oderate 25-75% cover (-3)		and/or disturbance tolerant nati absent, and high spp diversity	•
	parse 5-25% cover (-1)		the presence of rare, threatens	· •
	early absent <5% cover (0)			
A	bsent (1)	Mudflat and Open Wat	of Chas Quality	
fid. Microlo	pography.	0	Absent <0.1ha (0.247 acres)	
	sent using 0 to 3 scals.	<u>t</u>	Low 0.1 to <1hs (0.247 to 2.47 so	<del></del>
1 <del>7***</del>	egetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.86	acres)
in the second se	Danse woody debris > 15cm (6in)	3	High 4h2 (9.58 acres) or more	
<del>}</del> \$	landing dead >25cm (10in) dbh mphibian breeding pools	Microtopography Cove	er Scale	
المبياء المبيا	wherether madeling broad	0	Abseni	<del></del>
		1	Present very small amounts or if	more common
			of marginal quality	
		2	Present in moderate amounts, bu	t not of highest
			quality or in small amounts of hi	
		3	Present in moderate or greater an	nounts
			and of highest quality	



Refer to the most recent URAM Stoom Californian Report for the serving preparation between water discrepting as the following address: http://www.espa.stote.com/doi/10/1/10/1 htm.





Wetland W167AA



SURVEY TYPE Blue Creek Wind Farm    METLAND ID No.: W/16/AA     ASSOCIATED STREAM ID No. N/A     ASSOCIATED STREAM ID No. N/A     ASSOCIATED STREAM ID No. N/A     INVESTIGATORS: D.West, M.Nechvatal     STATE/COUNTY: Ohio/Paulding	ENT COVER  10 % 20 % 50 % 40 % 10 % 10 %					
DATE: 09/16/2009  CLIENT/PROJECT NAME Heartland Wind LL.C./ Blue Creek Wind Farm  INVESTIGATORS: D.West, M.Nechvatal  STATE/COUNTY: Ohio/Paulding  ROVER FILE: R091609ADW.cor  QUAD NAME: Latty  PHOTO No.: 167A1W, 167A2E  WETLAND QUALITY: Low  WETLAND TYPE: Palustrine SUBTYTE: Binergent  PLANT SPECIES  STRATUM  INDICATOR  PERCENT COVE  1. Scirpus validus  PHAPPOROLOGY  RECORDED DATA?  PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW-, FACW-, FAC (EXCLUDING FAC.): 100  VEGITATION REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA?  DESCRIBE:  Drainage Patterns  PAC Neutral Test  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  DRAINAGE CLASS Very poorly of TYPE. If NO, Soil Type Encountered?  PIEL OBSERVATIONS CONFIRM MAPPED TYPE. If NO, Soil Type Encountered?  DRAINAGE CLASS Very poorly of Type of the Confirm MAPPED TYPE. If NO, Soil Type Encountered?	ENT COVER  10 %  20 %  50 %  40 %  10 %					
INVESTIGATORS: D.West, M.Nechvatal STATE/COUNTY: Ohio/Paulding ROVER FILE R091609ADW.cor QUAD NAME: Latity  HUC-12 Code: 0410000070702  TOWNSHIF: Latity  WETLAND TYPE: Palustrine SUBTYPE: Binergent  PLANT SPECIES  PLANT SPECIES  STRATUM INDICATOR PERCENT COVER  STRATUM INDICATOR PERCENT COVER  1. Scirppus validius Herbaceous Ohilgate 10 %  2. Bichinochloa municata Herbaceous Fac Wet 20 %  3. Scirpus lineatus Herbaceous Unicnown 50 %  4. Carex sp. Herbaceous Ohilgate 10 %  5. Scirpus streovieres Herbaceous Unicnown 50 %  Fac Wet 40 %  5. Scirpus atrovieres Herbaceous Ohilgate 10 %  6. Polygonum perusylvanica Herbaceous Pac Wet 40 %  5. Scirpus atrovieres Herbaceous Pac Wet 40 %  6. Polygonum perusylvanica Herbaceous PAC (EXCLUDING FAC): 100  VEGETATION REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA? DESCRIBE:  DEPTH OF SURFACE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  PRICENT OF REW WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  PAC Neutral Test Other  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latity clay, 0 percent slopes (flats)  DRAINAGE CLASS: Very poorly of the parallel to existing road, perpendicular to CONFIRM MAPPED TYPE. If No, SOIL TYPE ENCOUNTERED?	ENT COVER  10 %  20 %  50 %  40 %  10 %					
### Photo No.: 167A1W, 167A2E  #### WETLAND TYPE: Palustrine SUBTIVES Emergent    Plant Species	ENT COVER  10 % 20 % 50 % 40 % 10 % 10 %					
Substyle Emergent	10 % 20 % 50 % 40 % 10 % 10 %					
SUBTYPE: Emergent  PLANT SPECIES STRATUM INDICATOR PERCENT COVER 1. Scirpus validus 2. Echinochloa muricata 3. Scirpus lineatus 3. Scirpus lineatus 4. Carex sp. 4. Carex sp. 5. Scirpus atrovirens 6. Polygonum pennsylvanica 6. Polygonum pennsylvanica 7. Herbaceous 7. H	10 % 20 % 50 % 40 % 10 % 10 %					
1. Scirpus validus	10 % 20 % 50 % 40 % 10 % 10 %					
2. Bichinochloa muricata 3. Scirpus lineatus 4. Carex sp. 4. Herbaceous 5. Scirpus atrovirens 5. Scirpus atrovirens 6. Polygonum pennsylvanica 6. Polygonum pennsylvanica 7. Herbaceous 7. Herbaceous 7. Herbaceous 7. Descritor Dominant Species that are OBL, FACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 100  Vegetation Remarks: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA?  Describe:  Depth to Saturated Soil: >16 (in)  Depth to Free Water in Ptr: None (in)  PRIMARY WETLAND INDICATORS:  Drainage Patterns 7. Secondary Wetland Indicators:  Drainage Patterns 7. FAC Neutral Test 7. Other 7. Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  Map Unit Name (Series and Phase): Latty clay, 0 percent slopes (flats)  Drainage Class: Very poorly of the Company of the Co	20 % 50 % 40 % 10 % 10 %					
3. Scirpus lineatus	50 % 40 % 10 % 10 %					
4. Carex sp. Herbaceous Fac Wet 40 % 5. Scirpus atrovirens Herbaceous Obligate 10 % 6. Polygonum pennsylvanica Herbaceous FACW 10 % 6. Polygonum pennsylvanica Herbaceous FACW 10 % 6. Polygonum pennsylvanica Herbaceous FACW 10 % 6. Polygonum pennsylvanica FACW, FACW, FACW+, FACW-, FAC+, or FAC (excluding FAC-): 100  VEGETATION REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA?  DESCRIBE:  DEPTH TO SATURATED SOIL: >16 (in)  DEPTH TO FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  Drainage Patterns Secondary Wetland Indicators:  Drainage Patterns PAC Neutral Test Other  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (Subgroup):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE. Is No, SOil TYPE ENCOUNTERED?	40 % 10 % 10 %					
5. Scirpus atrovirens 6. Polygonum pennsylvanica	10 %					
6. Polygonum pennsylvanica Herbaceous FACW 10 %  Percent of Dominant Species that are OBL, FACW, FACW+, FACW+, FACW+, FAC (excluding FAC+): 100  Vegetation Remarks: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA?  Describe:  Depth of Surface Water: N/A (in) Depth to Saturated Soil: >16 (in)  Depth to Free Water in Pit: None (in)  PRIMARY WETLAND INDICATORS: Secondary Wetland Indicators:  Drainage Patterns Soil: > FAC Neutral Test Other  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (Series and Phase): Latty clay, 0 percent slopes (flats)  Taxonomy (Surgroup): Field Observations Confirm Mapped Type, If No, Soil Type Encountered?	10 %					
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC (EXCLUDING FAC-): 100  VEGETATION REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA?  DESCRIBE:  DEPTH OF SURFACE WATER: N/A (in) DESCRIBE:  DEPTH TO SATURATED SOIL: >16 (in)  DEPTH TO FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS:  Drainage Patterns FAC Neutral Test Other  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  DRAINAGE CLASS: Very poorly of TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE BNOOUNTERED?						
VEGETATION REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  HYDROLOGY  RECORDED DATA?  DESCRIBE:  DEPTH TO SATURATED SOIL: >16 (in)  DEPTH TO FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  Drainage Patterns  FAC Neutral Test Cheer  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  FILD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	/ery poorly drained					
RECORDED DATA?  DEPTH OF SURFACE WATER: N/A (in)  DEPTH TO FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  Drainage Patterns  PAC Neutral Test Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	ery poorly drained					
RECORDED DATA?  DESCRIBE:  DEPTH OF SURFACE WATER: N/A (in)  DEPTH TO FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  Drainage Patterns  FAC Neutral Test  Cother  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  DEPTH TO SATURATED SOIL: >16 (in)  SECONDARY WETLAND INDICATORS:  SECONDARY WETLAND INDICATORS:  FAC Neutral Test Other  Cother  Domainage Patterns  SOILS  DRAINAGE CLASS: Very poorly of the property of t	ery poorly drained					
DEPTH TO FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  Drainage Patterns  PAC Neutral Test Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?	ery poorly drained					
PRIMARY WETLAND INDICATORS:  Drainage Patterns  FAC Neutral Test  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	łery poorly drained					
PAC Neutral Test Other  Local Soil Survey  REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  DRAINAGE CLASS: Very poorly of TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAFFED TYPE. If No, SOIL TYPE ENCOUNTERED?	√ery poorly drained					
REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	very poorly drained					
REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	very poorly drained					
REMARKS: Roadside ditch, parallel to existing road, perpendicular to access rd  SOILS  MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	very poorly drained					
MAP UNIT NAME (SERIES AND PHASE): Latty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	Very poorly drained					
TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?	Very poorly drained					
PROFILE DESCRIPTION						
I NOTED DESCRIPTION						
DEPTH INCHES) / MORIZON / / / / / / / / / / / / / / / / / / /	TEXTURE, CONCRETIONS, STRUCTURE, ETC.					
0-7 A 10YR 4/2 20% 5YR 4/4 Silt Loam	lt Loam					
7-12+ B 10YR 5/1 10% 5YR 4/4 Silty Clay Loam	Clay Loam					
HYDRIC SOIL INDICATORS:						
	Listed Hydric Gleyed					
REMARKS:	<del></del>					
WETLAND DETERMINATION	<b>********</b>					
HYDROPHYTIC VEGETATION PRESENT? Yes 15 THIS SAMPLING POINT WITHIN A WETLAND? Yes						
WETLAND HYDROLOGY PRESENT? Yes 1s This An Isolated Wetland? No						
HYDRIC SOILS PRESENT? Yes						
11 (Date Oolto 1 Atabay) (165						
NORMAL CIRCUMSTANCES 7 Yes SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No	Jo					

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

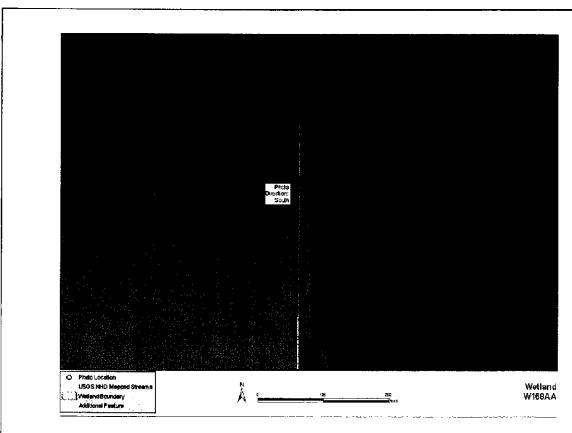
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

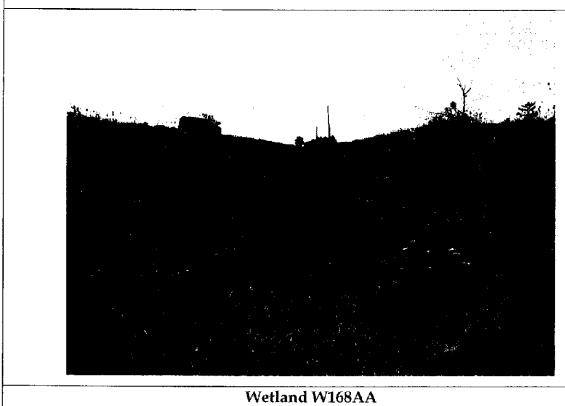
Site:	t et	Rater(s):	7 & 50	Date:
22	Metric 1. Wetl	and Area (size).		
mana é quas subserbal	Select one size class and assi  >50 acres (>20.2ha)  25 to <50 acres (10.  10 to <25 acres (4 to 3 to <10 acres (1.2 to <0.3 acres (0.10 acres (0.10 acres (0.10 acres (0.10 acres (0.10 acres (0.10 acres (0.04ha)))	(6 ptv) 1 to <20.2ha) (5 pts) 3 <10.1ha) (4 pts) 5 <4ha) (3 pts) 5 to <1 7ha) (2pts) 94 to <0.12ha) (1 pt)		
3	Metric 2. Upla	nd buffers and su	rrounding lar	nd use.
mae 14 pt/ suboted	20. Calculate average buffer wide. Buffers aver MEDIUM. Buffers a NARROW. Buffers VERY NARROW. E. intensity of surrounding la VERY LOW. 2nd grid LOW. Old field (>10 MODERATELY HIG	width. Select only one and assign score age 50m (164ff) or more around wetlen werage 25m to <50m (82 to <164ff) arouverage 10m to <25m (32ft to <82ff) arouffers average <10m (<32ft) around we not use. Select one or double check around no older forest, prairie, savannah, years), shrubland, young second grow H. Residential, fanced pasture, park, c stal, open pasture, row cropping, minin	e. Do not double check, d perimeter (7) und wetland perimeter (4) ound wetland perimeter (1) tland perimeter (0) and average, wildlife area, etc. (7) th torest, (5) onservation tillage, new fall.	,
83115	Metric 3. Hyd	rology.		
max 36 pts, subtotal	3a. Sources of Water. Score High pH groundwater Other groundwater ( Precipitation (1) Seasonal/Intermitter Perennial surface w 3c. Maximum water dapth. S >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to  <0.4m (<15.7in) (1) 3e. Modifications to natural hy None or none appar Recovered (7) Recovering (3)	all that apply.  or (5)  3)  It surface water (3)  ater (lake or stream) (5)  elect only one and assign score.  27.6in) (2)  rdrologic regime. Score one or double and (12)  Check all disturbances observed.	Part of welland Part of riparian 3d, Duration inundation/ Semi- to perma Regularly inunc Seasonally inun Seasonally inun Average.  arved point source (no	plain (1)  m/lieke and other human use (1)  /upland (e.g. forest), complex (1)  or upland corridor (1)  saturation. Score one or dbl check.  mently inundated/saturated (4)  lated/saturated (3)  indated (2)  united in upper 30cm (12in) (1)  onstormwater)
1518	Recent or no recove	dike weir stormwater input	road bed/RR fro dredging other	
must 20 pts. subtotal	4a. Substrate disturbence. Simple or none appear Recovered (3)  Recovering (2) Recovering (2) Recent or no recove district development. See Excellent (7)  Very good (6) Good (6) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4o. Hobitat alteration. Score of None or none appear	core one or double check and average.  cort (4)  cy (1)  act only one and assign score.  core or double check and average.  core or double check and average.	rved	
subjected that to	Recovered (6) Recovering (3) Recent or no recove	ry (1) grazing steerouting selective cutting woody debris removal toxic pollutants	shrub/septing re herbaceous/aqu sedimentation dredging farming nutrient enrichm	atic bed removal

Site: WIG7AP Ra	ter(s): 14 ,	En 1/50802 TAX Date: 9/12
Metric 5. Special Western to the second of t	-unrestricted hydrology (10 -restricted hydrology (5) -nings) (10) -reatened or endangered sp	pecies (10)
Category 1 Wetland. See Question	- ·	
2 Metric 6. Plant comm	nunities, inte	erspersion, microtopography.
max 20 pts subtotal 6a, Welland Vegelation Communities.	Vegetation Community	
Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
Aquatic bed	· 1	Present and either comprises small pert of wetland's
<u>∮</u> Emergent		vegeration and is of moderate quality, or comprises a
Shrub		significant part but is of low quality
Forest	2	Present and either comprises significant part of wetland's
<u></u>		vegetation and is of moderate quality or comprises a small
C Open weter		part and is of high quality
Other	3	Present and comprises significant part, or more, of wetland's
6b. horizontal (plan view) Interspersion.		vegetation and is of high quality
Select only one.	,	
	Narrative Description	
Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
Moderate (3)		disturbanco tolerant native species
Moderately low (2)	mod	Native spp are dominant component of the vegetation,
Low (1)		although nonnative and/or disturbance tolerant native app
√_ None (0)		can also be present, and species diversity moderate to
6c. Coverage of invasivo plants. Refer		moderately high, but generallywio presence of rare
to Table 1 ORAM long form for list. Add		threatened or andangered spo
or deduct points for coverage	high	A predominance of native species, with normative spp
Extensive >75% cover (-5)		and/or disturbance tolerent native app absent or virtually
Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
Sparse 5-25% cover (-1)		the presonce of rare, threatened, or endangered app
Neany absent <5% cover (0)		
Absent (1)	Mudifiet and Open Wat-	The state of the s
6d. Microtopography.	<u>0</u>	Absent <0.1ha (0.247 acres)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1)1a (0.247 to 2.47 acres)
Vegetaled hummucks/lussucks	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
Coarse woody debns > 15cm (6in)	3	High 4ha (9.88 acres) or more
Standing dead >25cm (16in) deh  C Amphibian breeding pools	Microtopography Cove	er Scale
	0	Absent
	1	Present very small amounts or if more common
	,	of marginal quality
	2	Present in moderate amounts, but not of highest
	2	quality or in small amounts of highest quality
	3	Present in moderate or greater amounts
	₩	and of highest quality
	<del></del>	and the same of th

20 GRAND TOTAL (max 100 pts)

Roller to the most recent CRAM Score Calleration Retirit for the smerring breakpoints between wildard : stegener with following audiress. They fivene ear state obsusts wild that







SURVEY TYPE: Blue		WETLAND ID No.: W168AA							
							EAM ID NO: N/A		
DATE: 09/16/2009			CLIENT/PROJECT NAME:	Heartlar				rnn	
INVESTIGATORS: R Hook			STATE/COUNTY: Ohio/	Van Wert		Rove	RFILE RAH0916094	A.cor	QUAD NAME: Scott
Huc12 Code: 041000070	701		Township: Hoaglin			Рнот	70 No.:		
WETLAND QUALITY: LOW	,				D TYPE: Palus :: Emergent	trine			
	PLANT SPE	CIE5		5	TRATUM		INDICATOR		Percent Cover
Lycopus americana					lerbaceous		Obligate		10 %
Leersia oryzoides     Alisma subcordatum			<del></del>		lerbaceous lerbaceous	-+	Obligate Obligate		50 % 10 %
4. Scirpus atrovirens	•				ierbaceous	$\neg$	Obligate		10 %
<ol><li>Penthorum sedoides</li></ol>				J.	ierbaceous		Obligate		20 %
6. Ludwigia palustris				<u> </u>	lerbaceous .		Obligate		50 %
PERCENT OF DOMINANT S	PECIES THAT A	RE OBL,	FACW, FACW+, FACW-,	FAC+, OR	FAC (EXCLUE	ING FA	(C-): 100		
VEGETATION REMARKS:	roadside ditch								
		•		Hypr	OLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WAT	er: N/A	<b>i</b> n)		ū	EPTH TO SATU	RATED	Son: >16 (in)		
DEPTH TO FREE WATER IN	Prr: Non	e (in)					_		
PRIMARY WETLAND INDI	CATORS:			S	ECONDARY WI	ETLAND	INDICATORS:		<u> </u>
Water Marks				0	xi Root Chana	nels			
Drainage Patterns									
REMARKS: roadside dite	ch								
				Sc	DILS				
Map Unit Name (Series	AND PHASE): I	atty silt	ty clay, 0 percent slopes (f	lats)			τ	Draina	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP):			FIELD OBSERVATION	NS CONFIR	m Mapped Ty	pe. If N	io, Soil Type Encou	NTERED	8
			Pro	FILE D	ESCRIPTI	ON			_
Depth (Inches)	Horizo	N	MATRIX COL (MUNSELL MC				E COLOR L MOIST)		Texture, Concretions, Structure, etc.
0-2	O		7.5YR 3/1		Oxid	lized RI	hizospheres		Silt Loam
2+	С		10YR 5/2			10YR 5			Clay Loam
Hydric Soil Indicator	S:								
Listed Hydr	ic		Gleyed						
Remarks:									
			WETLA	ND DE	TERMINA	ATIO	N		
Hydrophytic Vegetati	ON PRESENT?	es es			OINT WITHIN A				
WETLAND HYDROLOGY P	RESENT? Yes		Is This An	ISOLATED	WETLAND?	Vo			
HYDRIC SOILS PRESENT?	Yes								
NORMAL CIRCUMSTANCE	36? Yes		SIGNIFICAL	NTLY DIST	urbed: No		POTENTIAL	PROBL	em Area? No
D	ESCRIPTIO	N OF	WETLAND CROS	SING	TYPES AN	ID W	ETLAND QUA	LITY	CRITERIA
HIGH QUALITY WETL									pes – hydrologic and soil indicators

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation.

hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



## ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek					ED WETLAND			
DATS: 09/16/2009			LIENT/PROJECT NAME:	Llosetlan	<del></del>				
				<del></del>	u vvniu bb	<del></del>			
Investigators: Hook		- S	TATE/COUNTY: Ohio/	Van Wert	t QUAD NAME: Scott				
Huc12 Code: 041000070	0701	T	OWNSHIF: Hoaglin		,	Рното No.:			
WETLAND QUALITY: N/A					and Type: N/A YPE: Upland				
	PLANT SPE	CIES		s	TRATUM	INI	DICATOR	PERCENT COVER	
1. Daucus carota					erbaceous		Jpland	10 %	
2. Asclepias syriaca				Н	erbaceous	I	Jpland	10 %	
3. Festuca sp.					erbaceous		Fac Up	40 %	
4. Cirsium arvense				H	erbaceous		Fac Up	20 % ·	
5				<del> </del>				<u>%</u>	
6								76	
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, FA	CW, FACW+, FACW-	, FAC+, OR	FAC (EXCLUE	ping FAC-): $0$			
VEGETATION REMARKS:									
				Hydre	OLOGY				
RECORDED DATA?			DESCRIBE:		•	_			
DEPTH OF SURFACE WAT		A (în)		Di	EPTH TO SATI	URATED SOIL:	(in)		
DEPTH TO FREE WATER I	N Pit: Nor	ne (in)							
PRIMARY WETLAND IND	ICATORS:			SE	CONDARY W	ETLAND INDIC	ATOR5:		
None									
REMARKS:									
				So	ILS				
MAP UNIT NAME (SERIE	B AND PHASE): ]	_atty silty c	lay, 0 percent slopes (	(flats)				DRAINAGE CLASS: Very Poorly drained	
TAXONOMY (SUBGROUP)	) <b>:</b>		FIELD OSSERVATION	ONS CONFIRM	MAPPED T	rpe. If No, So	L Type Enco	DUNTERED?	
			Pro	OFILE D	ESCRIPT	ION			
<b>ДЕРТН (INCHES)</b>	Horizo	N	MATRIX CO (MUNSELL M			MOTTLE COL IUNSELL MO		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-12	A		10yr 4/2			10yr 4/6 40%		Silt Loam	
HYDRIC SOIL INDICATOR	ts:		<del></del>		1		<del></del>	<del></del>	
Remarks:									
			VA/ETT	AND DE	TERMIN	ATION			
			···						
HYDROPHYTIC VEGETAT WETLAND HYDROLOGY		No.			WETLAND?	A WETLAND?	No		
		_	ISTHISA	N ISOLATED	WEILAND!	N/A			
HYDRIC SOILS PRESENT?			Srcure c	ANTLY DISTU	mero. V	···	Poyenti	AL PROBLEM AREA? No	
NORMAL CIRCUMSTANC		NI CE TA				ın Wer		VALITY CRITERIA	
<u>_</u>	) i Timpea	IN OF W	VET LAND CRO	aging !	L LEES AI	AD AABIL	AND QU	WELL I CHIEBIN	
are characteristic of the	pecific commu	nity type – լ	provi <b>des</b> suitable habi	itat for wild	life - high qu	iality peremi	al streams ar	etation types – hydrologic and soil indicators to often observed.	

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

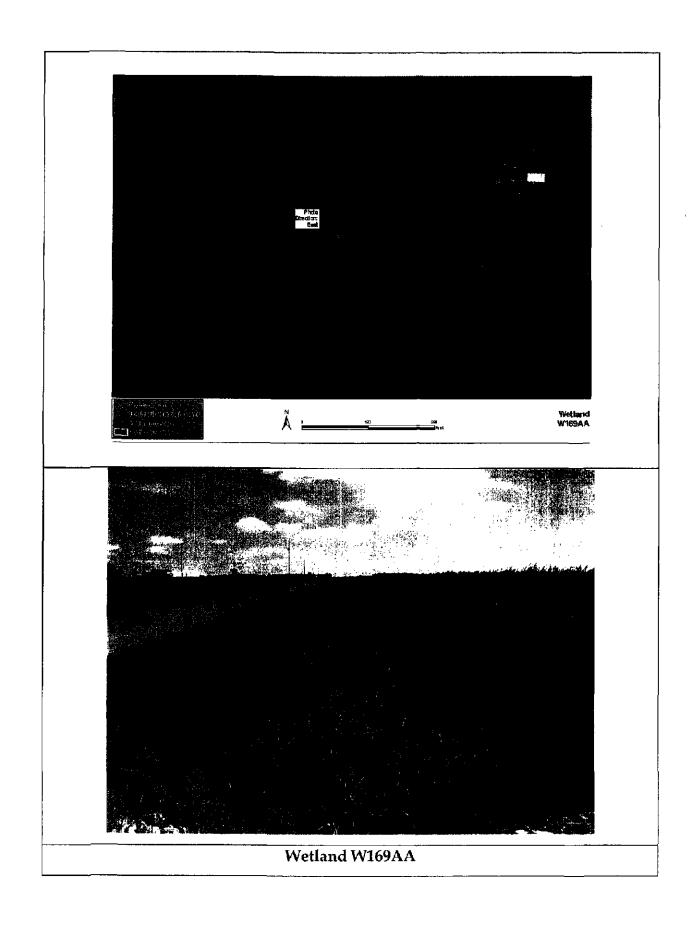
ORAM v. 5.0 Field Form Quantitative Rating	· · · · · · · · · · · · · · · · · · ·	
Site: W 0/68 AA	Rater(s): 2 took	Date: 9/16/09
Z Z Metric 1. Wetland A		
Select one size class and assign sco >50 acres (>20.2ha) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)	) 0.2ha) (5 pts) ha) (4 pts) ) (3 pts) / @ 2ha) (2pts)	ere .
Metric 2. Upland bu		
WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers 2b. Internally of surrounding land use VERY LOW. 2nd growth of LOW. Old field (>10 years	m (164ft) or more around wetten 25m to <50m (82 to <164ft) ero a 10m to <25m (32ft to <82ft) a average <10m (<32ft) around we Select one or double check ar older forest, prairie, savannah, b, shrubland, young second grow aktential, fenoed pastura, park, o	nd perimeter (?)  sund wettand perimeter (4)  round wettand perimeter (1)  ettand perimeter (0)  nd average.  wildlife area, etc. (?)  vih forest. (5)  conservation tillage, new fallow field. (3)
8 // Metric 3. Hydrology		
max 30 pts. subtotal 3a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (is 3c. Maximum water depth. Select of 27.6 in (4) 0.7 (27.6 in (4) 0.7 (15.7 to 27.6 in (4) 3e. Modifications to natural hydrology	ce water (3) ke or stream) (5) nly one and assign score.	3b. Connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other human use (1)  Part of wetland/upland (e.g. forest), complex (1)  Part of riparian or upland corridor (1)  3d. Duration inundation/saturation. Score one or dbl che  Semi- to permanently inundated/saturated (4)  Regularly inundated/saturated (3)  Seasonally inundated (2)  Seasonally saturated in upper 30cm (12in) (1)  check and average.
None or none apparent (12 Recovered (7) Recovering (3) Recent or no recovery (1)	) Check all disturbances obserted ditch sile ditce weir stormwater input	point source (nonstormwater)  filling/grading road bed/RR treck dredging other
4 (5 Metric 4. Habitat A		
emaix 20 pte. subtotel  4a. Substrate disturbance. Score of None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or	e or double check and average. y one and assign score.	<del>-</del>
None or none apparent (9) Recovering (3) Recent or no recovery (1)		shrub/sapling removal herbaceous/aquatic bed removal sedimentation dredging farming nutrient enrichment

last revised 1 February 2001 jjm

ORAM v.	5.0 Fie	id Form	Quantitative	Rating

Site:	MO	168A	A	Rater(s):	RH	00K	Date: 9/16/09
[	15						
an)	total first pe	ge Ge					
-	15	Metr	ic 5. Special	Wetlands.			
meet 10 pts.	eupintal	Check al	I that apply and score as	indicated.			
			Bog (10)				
			Fen (10) Old growth forest (10)				
		-	Meture forested wetlan	d (5)		,	
			Lake Erle coastal/tribu	tery wetland-unrestr	icted hydr	ology (10)	
		<u> </u>	Lake Erie coastal/tribu	•		ogy (5)	
			Lake Plain Sand Prairi Relict Wet Prairies (10		(10)		
		<b>-</b>	Known occurrence sta		d or endar	noered species (10)	
		-	Significant migratory a				
			Category 1 Wetland.	Bee Question 1 Qua	litativo Ra	iting (-10)	
						_	
2	(7	Metr	ic 6. Plant co	ommunitie	s, inte	erspersion, microto	pography.
иних 20 pts.	aulykstad		iand Vegetation Commu		etation C	ommunity Cover Scale	
		Score al	present using 0 to 3 sc	ale	0	Absent or comprises <0.1ha (0.24	
		<u> </u>	Aquatic bed Emergent		1	Present and either comprises am vegetation and is of moderate of	
		\ <u>-</u>	Shrub			significant part but is of low qua	
			Forest		2	Present and either comprises alg	
			Mudilats			vegetation and is of moderate of	
			Open water			part and is of high quality	
		~ <u>_</u>	Other	· · · · · · · · · · · · · · · · · · ·	3	Present and comprises significan	• -
		Select or	zontal (plan view) Inters; ntv coe	ersion.		vegetation and is of high quality	·
			High (5)	Ner	rative De	scription of Vegetation Quality	
			Moderately high(4)	445.	low	Low spp diversity and/or predomin	nance of nonnative or
			Moderate (3)			disturbance tolerant native spec	
	•	<u> </u>	Moderately low (2)	•	mod	Native spp are dominant compon	<del>-</del> -
		<u> </u>	Low (1) None (0)			aithough nonnative and/or distuit can also be present, and species	• •
	•		gradie (v) erage of invasive plants.	Refer		moderately high, but generally s	•
÷			1 ORAM long form for it			threatened or endangered spp	
		or deduc	t points for coverage		high	A predominance of native species	·
			Extensive >75% cover			and/or disturbance tolerant nativ	-
			Moderate 25-75% cover (- Sparse 5-25% cover (-			absent, and high spp diversity a the presence of rare, threatened	
		1	Nearly absent <5% co	•	<del></del>	ule presente or rate, greecemen	if ou serveridaran ahh
		<u> </u>	Absent (1)		dilat and	Open Water Class Quality	
			ctopography.		0	Absent <0.1ha (0.247 acres)	
			present using 0 to 3 sc		1	Low 0.1 to <1ha (0.247 to 2.47 ac	
•		<u> </u>	Vegetated hummucks: Coarse woody debris:		3	Moderate 1 to <4ha (2.47 to 9.88 High 4ha (9.88 acres) or more	acres)
			Standing deed >25cm		-	THE WIE (S.OO BOISS OF THOIS	<del></del>
		-	Amphiblan breeding po		rotopogr	aphy Cover Scale	
		<u> </u>			0	Absent	
					1	Present very small amounts or if	nore common
				<u></u>		of marginal quality	An at afferment
					2	Present in moderate amounts, bu	-
					3	quality or in small amounts of hi Present in moderate or greater an	
						and of highest quality	
/7	GRAN	ID TO	TAL (max 100 p	ts)		<del>-</del>	

Reter to the most recent ORAM Score Calibration Report for the scoring breakpoints between weitend categories at the following ecdness: http://www.epa.ateta.ch.us/dew/401/401.html fast revised 1 February 2001 jjm





SURVEY TYPE: Blue		WETLAND ID No.: W169AA								
					ASSOCIAT	ED STRE	EAM ID NO: N/A			
DATE: 09/16/2009		CLIENT	PROJECT NAME:	Heartland	l Wind LL	C./ Blu	ie Creek Wind Fai	rm		
INVESTIGATORS: R Hooi	c	State/G	Соинту: Ohio/¹	Van Wert		Rove	R FILE: RAH0916092	A.cor	QUAD NAME: Scott	
Huc12 Code: 041000070	0702	Towns	нг: Hoaglin		Рното No.:					
WETLAND QUALITY: LOV	Y			WETLAND SUBTYPE: 1	TYPE: Palus Emergent	trine				
	PLANT SPE	CIES		ST	RATUM		INDICATOR		PERCENT COVER	
1. Typha latifolia				He	rbaceous		Obligate		50 %	
2. Scirgus atrovirens					rbaceous		Obligate		50 %	
3. Scirpus validus					rbaceous	<del></del>	Obligate		10 %	
4. Scirgus atrovirens			<del></del>		rbaceous	<del></del>	Obligate		10 % 10 %	
5. Lycopus americana 6. Ludwigia palustris					erbaceous erbaceous	<del></del> +	Obligate Obligate		10 %	
				•					10 %	
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, FACW, F	ACW+, FACW-	FAC+, OR I	AC (EXCLUE	DING FA	(C-J: 100			
VEGETATION REMARKS:	roadside ditch									
				HYDRO	DLOGY					
RECORPED DATA?	=		DESCRIBE:							
DEPTH OF SURFACE WAT	er: N/	<b>A</b> (in)		De	PTH TO SATE	DRATED	SOIL: >16 (în)			
DEPTH TO FREE WATER I	N PIT: No	ie (in)			<del></del>			·		
PRIMARY WETLAND IND	ICATORS:			Sec	CONDARY W	ETLAND	INDICATORS:	<u> </u>		
Water Marks		·		Oxi	i Root Chan	nels	<u></u> .	↓_	<del></del>	
Drainage Patterns			·—							
REMARKS: roadside die	tch									
REMARKS: roadside di	ech			Soi	ILS					
REMARKS: roadside dit  MAP UNIT NAME (SERIES		_atty silty clay, 0	percent slopes (f		ILS			DRAINA	GE CLASS: Very poorly drained	
	5 AND PHASE): 1			lats)		PE. IF N	Io, Sail Type Encou			
Map Unit Name (Serie	5 AND PHASE): 1		ILD OBSERVATION	lats) NS CONFIRM			L			
Map Unit Name (Serie	5 AND PHASE): 1	Fig	ILD OBSERVATION	lats) NS CONFIRM DFILE DE OR	MAPPED TY	ION IOTILI	L	NTERED		
MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP)	5 AND PHASE): 1	Fig	PRO MATRIX COL (MUNSELL MO	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	O, SOIL TYPE ENCOU	NTERED	? Texture, Concretions,	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP) DEPTH (INCHES)	5 AND PHASE): ] ; HORIZO	Fig	PRO MATRIX COL (MUNSELL MO	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP) DEPTH (INCHES)	5 AND PHASE): 1 ; HORIZO	Fig	PRO MATRIX COL (MUNSELL MO	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
MAP UNIT NAME (SERIE TAXONOMY (SUBGROUP) DEPTH (INCHES)	5 AND PHASE): 1 : HORIZO C	Fig	PRO MATRIX COL (MUNSELL MO	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+	5 AND PHASE): 1 ;  HORIZO  C	Fig	PRO MATRIX COL (MUNSELL MO	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  HYDRIC SOIL INDICATOR Listed Hydr	5 AND PHASE): 1 ;  HORIZO  C	Fig	PRO MATRIX COL (MUNSELL MC  10Y 4/1  5GY 3/1	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  Hydric Soil Indicator	5 AND PHASE): 1 ;  HORIZO  C	Fig	PRO MATRIX COL (MUNSELL MC  10Y 4/1  5GY 3/1	lats) NS CONFIRM DFILE DE OR	MAPPED TY SCRIPTI	ION IOTILI IUNSEL	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  HYDRIC SOIL INDICATOR Listed Hydr	5 AND PHASE): 1 ;  HORIZO  C	Fig	PRO MATRIX COL (MUNSELL MC  10Y 4/1  5GY 3/1	lats) N6 CONFIRM DFILE DE .OR DIST)	MAPPED TY SCRIPTI	ION  fottle lunsel dized Ri 10YR 5	io, Soil Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  HYDRIC SOIL INDICATOR Listed Hydr	HORIZO C RS:	FIE	PRO MATRIX COL (MUNSELL MC  10Y 4/1  5GY 3/1  Gleyed	lats) NS CONFIRM DFILE DE OR DIST)	MAPPED TY SSCRIPTI M (M Oxic	ION FOTTLE TUNSEL TOYR 5	io, Sail Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  HYDRIC SOIL INDICATOR Listed Hydric Remarks:	HORIZO C RS:	FIE	PRO MATRIX COL (MUNSELL MO  10Y 4/1  5GY 3/1  Gleyed  WETLA	NO DE	SCRIPTI M (M Oxic	ON fortli lunsel dized Ri 10YR 5	io, Sail Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  Hydric Soil Indicator Listed Hydric Remarks:	HORIZO  O  C  US: ric  TON PRESENT? Yes	FIE	PRO MATRIX COL (MUNSELL MO  10Y 4/1  5GY 3/1  Gleyed  WETLA	NO DE	SCRIPTI M (M Oxio	ON fortli lunsel dized Ri 10YR 5	io, Sail Type Encou	NTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  HYDRIC SOIL INDICATOR Listed Hyd: REMARKS:  HYDROPHYTIC VEGETAT WETLAND HYDROLOGY	HORIZO  C  C  RS:  ric  ION PRESENT? Yes  Yes	FIE	PRO MATRIX COL (MUNSELL MC  10Y 4/1  5GY 3/1  Gleyed  WETLA  15 This SA  15 This SA	NO DE	I MAPPED TY SSCRIPTI M (M Oxio	ON fortli lunsel dized Ri 10YR 5	io, Soil Type Encou	INTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam	
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-3 3+  HYDRIC SOIL INDICATOR Listed Hydr REMARKS:  HYDROPHYTIC VEGETAT WETLAND HYDROLOGY HYDRIC SOILS PRESENTANORMAL CIRCUMSTANO	HORIZO  C  RS: ric  TON PRESENT? Yes  Yes  ES? Yes	Yes	PRO MATRIX COL (MUNSELL MC  10Y 4/1  5GY 3/1  Gleyed  WETLA  Is This SA  Is This AN	NO DET	SCRIPTI M (M Oxic	FOTTLE LUNSEL  dized Ri  10YR 5	io, Soil Type Encou	INTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC.  Silt Loam  Clay Loam  EM AREA? No	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation. hydrology and/ or soil characteristics -- provides suitable habitat for wildlife and vegetation -- associated perennial or intermittent streams are of relatively good quality

and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



### ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue	SURVEY TYPE: Blue Creek							WETLAND ID No.: U169AA				
	***					Associat	ED WE	TLAND ID NO: W1	69AA			
DATE: 09/16/2009			CLIENT/PI	којест Наме:	Heartl	and Wind LL	C./ Bl	ue Creek Wind F	arm			
Investigators: Hook			STATE/CO	unty; Ohio/	Van Wei	rt	t Quad Name: Scott					
Huc 12 Cope: 041000070	702		Townshii	P: Hoaglin			PHO	то №.:				
WETLAND QUALITY: N/A			<u></u>			AND TYPE: N/A						
	PLANT SPE	CIES				STRATUM	T	INDICATOR	T	PERCENT COVER		
1. Daucus carota			_			Herbaceous		Upland		10 %		
2. Bromus inermis						Herbaceous		Upland		30 %		
Festuca sp.     Hibiscus trionum			<del></del> -		<del>                                     </del>	Herbaceous Herbaceous		Fac Up Upland	+	40 % 10 %		
5.	· · · · · · · · · · · · · · · · · · ·				<del> </del>	Fierbaceous		College	<del>                                     </del>	%		
6.										%		
Percent of Dominant 5	PECIES THAT A	RE OBL,	FACW, FA	CW+, FACW-	FAC+,	OR FAC (EXCLUI	DING FA	AC-): 0		,		
VEGETATION REMARKS:					, ,							
			····		Hyp	ROLOGY					·· .	
RECORDED DATA?			1	Describe:								
DEPTH OF SURFACE WATE	er: N/s	A (in)				DEPTH TO SATU	RATEL	SOIL: (in)				
DEPTH TO FREE WATER IN	N Prt: Nor	ve (in)										
PRIMARY WETLAND INDI	CATORS:					SECONDARY W	ETLANI	DINDICATORS:				
None												
Remarks:												
	····		·········		5	SOILS						
Map Unit Name (Series	AND PHASE): 1	Latty silt	y clay, 0 per	rcent slopes (f					DRAINAG	E CLASS: Very Poorly drained	l	
TAXONOMY (SUBGROUF):			FIELD	OBSERVATIO	ns Conf	TRM MAPPED TY	PE. IF I	No, Soil Type Enco	UNTERED?			
				PRO	FILE	DESCRIPT	ON					
DEPTH (INCHES)	Horizo	)N		MATRIX COI IUNSELL MO		1		E COLOR LL MOIST)	Т	EXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-4	A			2.5y 3/2						Silt Loam	••	
4+	В			2.5y 3/1			7.5yr	4/62%		Silt Loam		
HYDRIC SOIL INDICATORS	St	τ										
		<u> </u>										
Remarks:												
				WETLA	ND D	ETERMIN.	ATIC	N				
Hydrophytic Vegetati	ON PRESENT? 1	Vo.		Is This Sa	MPLING	POINT WITHIN A	Werl	AND? No				
WETLAND HYDROLOGY P				Is This An	ISOLATI	ED WEILAND?	V/A					
HYDRIC SOILS PRESENT?				ļ				<del></del>			•	
NORMAL CIRCUMSTANCE			T 4 7			TURBED: Yes				AREA? No		
D1	ESCRIPTIC	N OF	WETLA	ND CROS	SSING	I YPES AN	ID N	/ETLAND QU	ALITY (			
HIGH QUALITY WETL	AND: no indica	ation of a	stress or dis	turbance in w	etland o	r adjacent area	- diver	se and mature vege	tation type	s – hydrologic and soil indica	itors	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

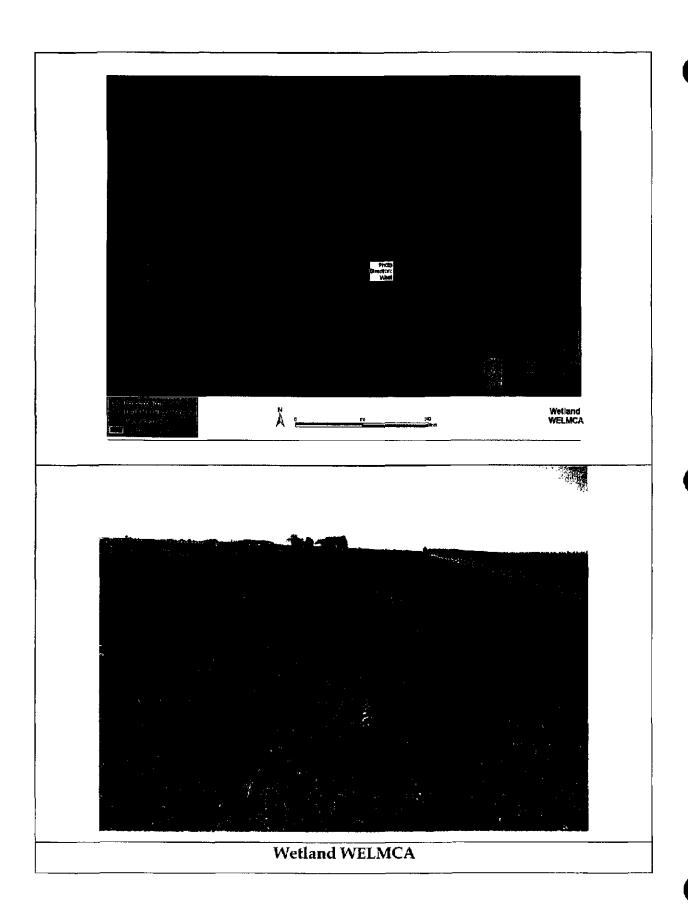
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v.	5.0 Field F	orm Q	uentitative Rating		<u></u>			
Site:	W16	9/	łA	Rater(s):	RHOOK		Date: 9/16	,/09
These G pile.	2 autotal		otric 1. Wetland A of one size class and aseign sco >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4hs) 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <	re. ) 20.2he) (5 pts) (he) (4 pts) a) (3 pts) .2he) (2pts) (0.12he) (1 pt)	1 aes	re	·	<b>'</b>
h	3	Me	etric 2. Upland bu	rffers and	surround	ing land use	_	
resox 14 pta	subtotal	2a.	Calculate average buffer width.  WIDE, Buffers average 50 MEDIUM. Buffers average MEDIUM. Buffers average MEROW. Buffers average VERY NARROW. Buffers Intensity of surrounding land use LOW. Old field (>10 years MODERATELY HIGH. Re PHIGH. Urban, industrial, o	Select only one at om (164ft) or more 25m to <50m (85 je 10m to <25m ( average <10m (< 5. Select one or o or older forest, pra i), shrubland, your sidential, fenced j	nd assign score. It is around wettend point of the count	to not double check. erimeter (7) wetland perimeter (4) ad wetland perimeter (1) ad perimeter (0) werage. Hife area, etc. (7) brest. (5) ervation tillage, new fal	)	
8	11	Me	etric 3. Hydrology	<i>.</i>		.,		
enact 30 plus	. subictal	3e. 3	Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surface water (is Maximum water depth. Select of >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <a href="#">&lt; &lt; 0.4m (&lt; 15.7in) (1)</a> Modifications to natural hydrolog	t apply. ace water (3) ake or stream) (5) nfy one and assig ) (2)	3d. n score.	Part of wetland/ Part of riparian of Curation inundation/sa Semi- to perman Regularly inunda Seasonally inun Seasonally satu	ain (1) Viake and other hum uptand (e.g. forest), or upland corridor (1) turation. Score one nently inundated/sati	complex (1) ) or dbl check urated (4
			None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check eli distr ditch ditch dike dike welr	urbances obeerved her Input	point source (no filling/grading road bed/RR tradredging other_		
u	15	M	etric 4. Habitat Al	Iteration a	nd Develo	opment.		
rreat 20 pts	subtrain)	4a. 4b.	Substrate disturbance. Score or None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or	ne or double chec ly one and assign double check and	k and average. score.	•		
	15		None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing dearcuit	cutting obris removal	shrub/sapling re	atic bed removal	•

Site: W/6	gaa	Rater(s): 72	- Wook	Date: 9/16/09
subtotal first p	Metric 5. Special V	Votlanda	·	•
L	<u> </u>			•
max 10 pts. mubicitif	Check all that apply and score as in  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wetland ( Lake Erie coastst/tributary Lake Plain Sand Prairies  Relict Wet Prairies (10)  Known occurrence state/f  Significant migratory song  Category 1 Wetland. Sec	5) / welland-unrestricted / welland-restricted hy (Oak Openings) (10) rederal threatened or e pbird/weter fowl habita	drology (5) indangered species (10) tor usage (10)	
217	Metric 6. Plant cor	nmunities, i	nterspersion, mi	crotopography.
mex 20 pts. subtotal	6a. Wetland Vegetation Communiti		on Community Cover Scale	
•	Score all present using 0 to 3 scale.  Aquatic bed	0_		he (0.2471 acres) configuous area ises small part of wetland's
	Emergent	•	<u> </u>	derate quality, or comprises a
	Shrub		significant part but is of	
	Forest	2	-	ises significant part of wetland's
	Mudflats			derate quality or comprises a small
	Open water	<del></del>	part and is of high quali	
	Other  6b. hortzontal (plan view) interspen	3 slon.	vegetation and is of hig	gnificant part, or more, of wetland's h cuality
	Select only one.			
	High (5)	<u>Narrativ</u>	Description of Vegetation C	
	Moderately high(4)	low		predominence of nonnetive or
	Moderate (3)	<del></del>	disturbance tolerant nat	
	Moderately low (2)	mod		component of the vegetation,
	None (0)		T -	for disturbance tolerant native spp d species diversity moderate to
	6c. Coverage of investive plants, R	efer		nerally w/o presence of rare
	to Table 1 ORAM long form for list.		threatened or endanger	• •
	or deduct points for coverage	high		species, with normative app
	Extensive >75% cover (-5			ant native spp absent or virtually
	Moderate 25-75% cover (	-3)	absent, and high app di	versity and often, but not always,
	Sparse 5-25% cover (-1)		the presence of rare, th	reatened, or andangered spp
	Nearly absent <5% cover	- / -		
	Absent (1)		and Open Water Class Qualit	
	6d. Microtopography.  Score all present using 0 to 3 scale	. <u> </u>	Absent <0.1ha (0.247 ac	
	Vegetated hummucks/tus		Low 0.1 to <1ha (0.247 to Moderate 1 to <4ha (2.47	
	Coarse woody debris >15		High 4ha (9.88 acres) or r	
	Standing dead >25cm (10			11010
	Amphibian breeding pool	•	cography Cover Scale	
			Absent	
		1	Present very small amoun	nts or if more common
			of marginal quality	
		2	Present in moderate amo	<del>-</del>
			quality or in small amou	
		3	Present in moderate or gr and of highest quality	eater amounts

Refer to the most recent CRAM Score Calibration Report for the scoring breakpoints between wedland ontegories at the following edichess: http://www.opa.state.oh.we/daw/401/401.html
lest revised 1 February 2001 jjm





	4								
SURVEY TYPE: Blu	ie Creek W	ind Farm					io.: WELMCA		
		<del></del>					M ID No: N/A		
DATE: 09/17/2009		CLIEN	T/PROJECT NAME	Heartland	d Wind LL	C./ Blue	Creek Wind Farm	1	· · · · · · · · · · · · · · · · · · ·
Investigators: Hook		STAT	E/COUNTY: Ohio/	Van Wert	ROVER FILE: RAH091709A.cor QUAD NAME: Scott				QUAD NAME: Scott
Huc 12 Code: 04100007	70703	Town	SHIP: Union			Рното	No.: 0		
WETLAND QUALITY: Lo	W				TYPE: Palu: Emergent	strine			
-	PLANT SPE	CIES		S	TRATUM		INDICATOR		PERCENT COVER
1. Leersia coryzoides				He	abaceous		Obligate		20 %
2. Scurpus atrovirens					rbaceous		Obligate	-	20 %
Typha latifolia     Ludwigia palustris		<del></del>			arbaceous arbaceous		Obligate Obligate		70 % 10 %
5.	· - · · · · · · · · · · · · · · · · · ·			110	a Daceous		Obligate		%
6.									%
PERCENT OF DOMINANT	SPECIES THAT A	REOBL, FACW	, FACW+, FACW-	, FAC+, or I	FAC (EXCLUI	DING FAC	:-): 100		
VEGETATION REMARKS:									
				Hydro	DLOGY				
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WA	TER: 2 (i:	n)		DE	PTH TO SATE	JRATED S	OIL: 0 (in)		
DEPTH TO FREE WATER	IN Pit: 0								
PRIMARY WETLAND INC	DICATORS:			Sec	CONDARY W	ETLAND Î	NDICATORS:		
Inundated		Saturated Up	per 12in	FA	C Neutral T	est			
Drainage Patterns									
REMARKS: roadside di	tch							_	
<u></u>				So	ILS				
MAP UNIT NAME (SERIE				·					ECLASS: Very poorly drained
TAXONOMY (SUBGROUP	):	E					, SOIL TYPE ENCOUNT	TRED?	
	,	<u> </u>	PRC	FILE DE	SCRIPT	ON			· · · · · · · · · · · · · · · · · · ·
DEPTH (INCHES)	HORIZO	ON	MATRIX COI (MUNSELL MO			IOTTLE ( UNSELL			
0-10	А		10YR 5/2						Silty Clay Loam
10-12+	В		10YR 4/1			7.5YR5/6	30%		Clay Loam
The same Care Transaction						<del></del>			
Hydric Soil Indicator Listed Hyd			Gleyed	·			,	<del></del>	A
Remarks:			Gieyeu				·	<u> </u>	
			WETLA	ND DE	TERMIN.	ATION			
HYDROPHYTIC VEGETAT	TON PRESENT?	Yes	Is This Sa	MPLING POI	<b>NT WITHIN</b> 2	WEILAN	D? Yes		
WETLAND HYDROLOGY			Is This An	I ISOLATED V	Wetland?	No			
HYDRIC SOILS PRESENT									
NORMAL CIRCUMSTANC				NTLY <b>DIST</b> UI			POTENTIAL P		
	ESCRIPTIO	ON OF WET	LAND CRO	SSING T	YPES AN	ID WE	TLAND QUAL	ITY	CRITERIA
HIGH QUALITY WET	LAND: no indic	ation of stress o	r disturbance in w	etland or ac	ljacent area	- diverse	and mature vegetation	on type	es – hydrologic and soil indicators

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

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ORAM v. 5.0 Field For	m Quantitative Rating		
Site: WELL	act	Rater(s): R took	Date: 9/17/09
	Metric 1. Wetland A	•	
mex 8 pts. subtotal \$	>50 scres (>20.2hs) (6 pts   >50 scres (>20.2hs) (6 pts   25 to <50 scres (10.1 to <10 to <25 scres (4 to <10.1 to <4hs   >25	) 20.2ha) (5 pts)  ha) (4 pts) a) (3 pts) .2ha) (2pts) <0.12ha) (1 pt)	ave.
13	Metric 2. Upland bu	iffers and surrounding	g land use.
max 14 pts. subtotel	A. Calculate average buffer width.  WIDE. Buffers average 50  MEDIUM. Buffers average  NARROW. Buffers average  VERY NARROW. Buffers  b. Intensity of surrounding land use  VERY LOW. 2nd growth of  LOW. Old field (>10 years  MODERATELY HIGH. Re	Select only one and assign score. Do not in (164ft) or more around wedend perimal 25m to <50m (82 to <164ft) around weden to <25m (82ft to <82ft) around weden to <25m (32ft to <82ft) around weden to <25m (32ft to <82ft) around weden to average <10m (<32ft) around weden to period weden to color forest, prairie, savenneh, wildlife to older forest, prairie, savenneh, wildlife to savential, fenced pasture, park, conserve pen pasture, row cropping, mining, conserve to the color of the conserver of the color of t	ot double check. teter (7) tiand perimeter (4) retland perimeter (1) retland perimeter (1) retland perimeter (0) retland perimeter (
10 13	Metric 3. Hydrology	<i>f</i> .	
rest 30 pte. subtotel	ia. Sources of Water. Score all the High pH groundwater (5) Qther groundwater (3) Precipitation (1) Seasonal/intermittent surface water (is perennial surface water (is source) 30.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) <0.4m (<15.7in) (1)	t apply.  3b. Co ace water (3) ike or stream) (5) only one and assign score.  3) (2)	nnectivity. Score all that apply.  100 year floodplain (1) Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland comidor (1) ration inundation/saturation. Score one or dbl check Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1) and average.  point source (nonstormwater) filling/grading
7 70	Recent or no recovery (1)	dike weir stormwater input	road bed/RR track dredging other
macc 29 plas aubtotal	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or	ne or double check and average.  Ily one and assign soore.  double check and average.	
Zo subtotal this pag	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling removat herbaceous/aquatic bed removat sedimentation dredging farming nutrient enrichment

Site:	WEL	MCA	Rater(s	): TZ 6	took	Date: 9/17/09
**	20 shotal Brot pro	Metric 5. Spe	ecial Wetland	is.		,
mex 10 pts.	sublotal	Check all that apply and	ecore as indicated.			
		Bog (10)				
		Fen (10) Old growth fore	wet (40\			
		Mature forester	- •			
			tal/tributary wetland-un	restricted hw	irology (10)	
			tal/tribulary wetland-rec	-	<b></b>	
		Lake Plain Sen	id Prairies (Oak Openin	ıgs) (10)		
		Relict Wet Prei	- 1 - 7			•
			nce state/federal threat			
			ratory songbird/water fo			
		Category 1 We	dand. See Question 1	Cinandanine H	(UT-), grids	
_	20	Statute A. Die				
1	00			•	erspersion, mic	rotopograpny.
msx 20 pts.	subtotal	6a. Wetland Vegetation		<u>Vegetation</u>	Community Cover Scale	
		Score all present using 0	to 3 scale.	0		ha (0.2471 acres) contiguous area
		Aquatic bed		1	· ·	ses small part of wetland's
		/ Emergent Shrub			significant part but is of	ierate quality, or comprises a
		Forest		2		ses significant part of wetland's
		Mudflets		-	· ·	derate quality or comprises a small
		Open water			part and is of high qualit	
		Other		3	Present and comprises significant	prificant part, or more, of wetland's
		6b. horizontal (plan view	) interspersion.		vegetation and is of high	n quality
		Select only one.				
		High (5)	L/43		escription of Venetation O	
		Moderately hig	N(4)	low		redominance of nonnative or
		Moderate (3)  Moderately low	. (2)	mod	disturbance tolerant nati	ve species component of the vegetation,
		Low (1)	( ( <del>)</del>	INCL		or disturbance tolerant native app
		None (0)				species diversity moderate to
		6c. Coverage of invasive	plants. Refer			serally w/o presence of rare
		to Table 1 ORAM long fo	rm for list. Add		threatened or endangen	
		or deduct points for cover		high		species, with nonnative spp
		Extensive >75	, ,		1	ant native spp absent or virtually
		Moderate 25-7				versity and often, but not always, restance, or endangered soo
		Sperse 5-25% Nearly absent	, ,		THE PLESSINGS OF 1816 'AN	eatened, or endangered spo
		Absent (1)	~	Marifiet en	Open Water Class Quality	•
		6d. Microtopography.		0	Absent <0.1ha (0.247 acr	
		Score all present using 0	to 3 scale.	1	Low 0.1 to <1ha (0.247 to	
		/ Vegetated hun	nmucks/tussucks	2	Moderate 1 to <4he (2.47	to 9.88 acres)
		Coarse woody	debris >15cm (6in)	3	High 4ha (9.88 acres) or n	nore
			>25cm (10in) dbh			· · · · · · · · · · · · · · · · · · ·
		Amphibian bre	eding pools		raphy Cover Scale	
				-0	Absent	4- a- W
				1	Present very small amoun	IS OF IT ITICITE CONTINUIN
					of moreland multi-	
					of marginal quality Present in moderate amou	ints, but not of blobest

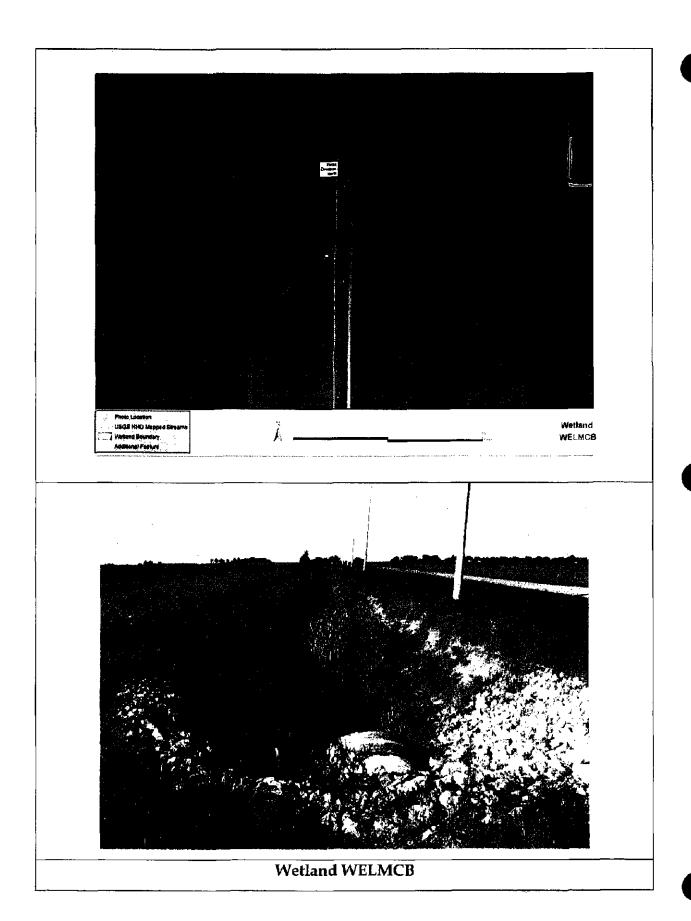
22 GRAND TOTAL (max 100 pts)

Refer to the most recent ORAM Score Calibration Report for the acceting breakpoints between westernd categories at the following address: http://www.epe.state.oh.ue/dsw/401/401,html last revised 1 February 2001 jjm

3

Present in moderate or greater amounts

and of highest quality





					1.00								
SURVEY TYPE: Blue Creek Wind Farm WETLAND ID No.: WELMCB													
					ASSOCIATED STREAM ID NO: N/A								
DATE: 09/17/2009 CHENT/PROJECT NA						tland Wind	LLC	:./ B	lue Creek Wind Fa	ım			
INVESTIGATORS: Hook STATE/COL				UNTY: Ohio/Van Wert				ROVER FILE: RAH091709A.cor			QUAD NAME: Scott		
Huc 12 Code: 041000070	PHOTO No.: 0					то №.: 0							
WETLAND QUALITY: LOV			LAND TYPE: P		trine								
PLANT SPECIES						STRATUN			INDICATOR		PERCENT COVER		
1. Leersia ooryzoides						Herbaceous			Obligate		20 %		
2. Scirpus atrovirens						Herbaceou	_	Obligate			30 %		
Typha angustifolia     4.						Herbaceou	8	-	Obligate	<del>                                     </del>	10 % %		
5.											*		
6.					<u> </u>					<u>L</u>	%		
PERCENT OF DOMINANT		RE OBL,	FACW, FAC	CW+, FACW-	FAC+	, OR FAC (EX	LUD	ING F	AC-): 100				
VEGETATION REMARKS:	ditch												
					HY	DROLOG	Y						
RECORDED DATA?			i	Describe:			•						
DEPTH OF SURFACE WAT	er: N/A	L (in)			Ţ	<b>Дертн</b> то 9	ATU	RATE	SOIL: >16 (in)				
DEPTH TO FREE WATER I													
Primary Wetland Indicators:						SECONDARY WETLAND INDICATORS:							
Drainage Patterns		<u>-</u>			FAC Neutral Test								
Sediment Deposits													
REMARKS: ditch													
						Soils			<del></del>	<del>''</del>	10 10 10 10		
Map Unit Name (Series	AND PHASE): I	loytville	e silty clay, (	percent slop	es (flat	s)				DRAINA	GE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	:		Field	OBSERVATION	NS CON	IFIRM MAPPE	TY	PE. IF	No, Soil Type Enco	JNTEREL	)?		
				Pro	FILE	DESCRI	TI	ON					
DEPTH (INCHES)	Horizo	N	5	MATRIX COL IUNSELL MO									
0-10	Α			10YR 5/2						Silty Clay Loam			
10-12+	В			10YR 4/1		7.5YR5/630%			5/630%	Clay Loam			
			<u> </u>			<u> </u>							
Hydric Soil Indicator		Т		Clared		1				-			
Listed Hydr		<u> </u>		Gleyed									
Remarks:													
				WETLA	ND	DETERM	N.	TIC	N				
HYDROPHYTIC VEGETATION PRESENT? Yes IS THIS SAM						mpling Point Within a Wetland? Yes							
WETLAND HYDROLOGY PRESENT? Yes IS THIS AN ISOLATED WETLAND? No													
Hydric Soils Present? Yes													
NORMAL CIRCUMSTANCES? Yes SIGNIFICA						NTLY DISTURBED: No POTE					TIAL PROBLEM AREA? No		
D	ESCRIPTIO	N OF	WETLA	ND CROS	SSIN	G TYPES	AN	DΨ	VETLAND QU	ALITY	CRITERIA		
	A harbon Ye					•							
HIGH QUALITY WETL	AND: no indica	mon of	stress or dist	turbance in w	etland	or adjacent a	ea -	diver	se and mature veget	ation ty	pes – hydrologic and soil indicators		

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## ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue Creek								WETLAND ID NO.: UELMCB ASSOCIATED WETLAND ID NO: WELMCB					
DATE: 09/17/2009	OJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm												
Investigators: Hook St				STATE/COUNTY: Ohio/Van Wert			QUAD NAME: Scott						
Huc 12 Code: 041000070	Townshii	BHIF: Union			P	Рного No.:							
WEILAND QUALITY: N/A		Wetland Type: N/A Subtype: Upland											
Plant Species					STRATUM				INDICA	TOR	PERCENT COVER		
1. Festuca rubта					Herbaceous				Fac l		70 %		
Daucus carota     Setaria glauca	·					Herbac Herbac		Upland Upland			10 % 10 %		
3. Seiana giauca					<del> </del>	петож	ceous		- Opia	ııu	% %		
5.											*		
6.					<u>.                                    </u>				<u> </u>		<u> </u>		
PERCENT OF DOMINANT S	SPECIES THAT ARE	OBL,	FACW, FA	CW+, FACW-	,FAC+	, or FAC	(EXCLUE	INC	FAC-): 0				
VEGETATION REMARKS:										_			
					HY	DROL	OGY						
RECORDED DATA?				DESCRIBE:									
DEPTH OF SURFACE WAT	er: N/A	(in)				Derin	то \$атц	JRAT	rad <b>S</b> OIL: >16	(in)			
DEPTH TO FREE WATER IN PIT: None (in)													
PRIMARY WETLAND INDI	CATORS:				SECONDARY WETLAND INDICATORS:						T		
None				<del></del>							ļ		
Remarks:													
·						SOILS	3						
MAP UNIT NAME (SERIES	and Phase): H	oytville	silty clay,	0 percent slop	es (flat	<b>s</b> )				ī	DBAINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP):			FRELC	OBSERVATIO	NS CON	VEIRM MA	APPED TY	PE.	If No, Soil Ty	PE ENCOU	NTERED?		
				PRO	FILE	DESC	RIPTI	[0]	<u> </u>	<b>,</b>			
DEPTH (INCHES)	DEPTH (INCHES) HORIZON MATRIX (MUNSELL						MOTTLE COLO (MUNSELL MO				TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-12	_A_			10yr 3/3							Silt Loam		
12+	В			10yr 3/3							Silt Loam		
			<u> </u>								, , , , , , , , , , , , , , , , , , , ,		
HYDRIC SOIL INDICATOR	9:												
REMARKS:													
WETLAND DETERMINATION													
HYDROPHYTIC VEGETATION PRESENT? No IS THIS SAMPLING POINT WITHIN A WETLAND? No													
						Isolated Wetland? N/A							
Hypric Soils Present? No													
NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: NO POTENTIAL PROBLEM AREA? NO													
DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITERIA													
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators are characteristic of the specific community type - provides suitable habitat for wildlife - high quality pergunial streams are often observed.													

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

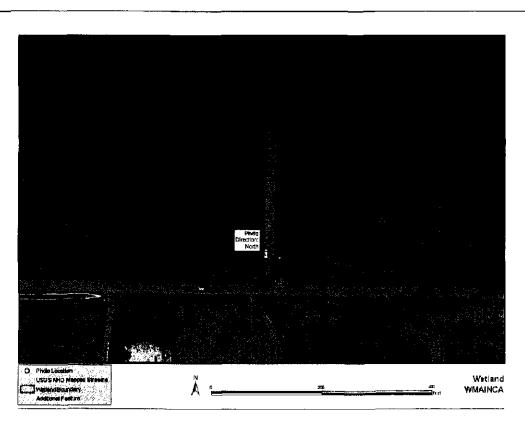
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

	ORAM v. 5	5.0 Fleid F	orm Quantital	ive Rating			
	Site:	WEI	MCB	MINCA	Rater(s): PHook	<b>.</b>	Date: 9/17/09
	2	2	Metric	/ 1. Wetland A	rea (size).		·
	ment 6 pts.	aubtotel	25 26 10 31 20 0.	ize class and assign sco io acres (>20.2ha) (6 pts) i to <50 acres (10.1 to <2 to <25 acres (4 to <10.1 to <10 acres (1.2 to <4ha 3 to <3 acres (0.12 to <1. 1 to <0.3 acres (0.04 to < 0.1 acres (0.04ha) (0 pts)	) (0.2ha) (5 pts) ha) (4 pts) () (3 pts) 2ha) (2pts) (0.12ha) (1 pt)	.3 acrec	
	max 14 pts,	3 subtotal	2a. Calcula	te average buffer width. 3 IDE, Buffers average 50	Iffers and surrour Select only one and assign second	e. Do not double check. nd perimeter (7)	
			2b. Intensity	ARROW. Buffers average ERY NARROW. Buffers: y of surrounding land use ERY LOW. 2nd growth or DW. Old field (>10 years) ODERATELY HIGH. Res	25m to <50m (82 to <164ft) are to 10m to <25m (32ft to <82ft) at average <10m (<32ft) around we . Select one or double check at f older forest, prairie, savannah, ), shrubland, young second grow sidential, fenced pasture, park, o pen pasture, row cropping, mining	round wetland perimeter (1) etland perimeter (0) nd awerage. wildlife area, etc. (7) win forest. (5) conservation tillage, new fall	
	thank 30 pts.	13 aubtotal	3a. <u>Sour</u> ce:	3. Hydrology s of Water. Score all that igh pH groundwater (5)		3b. Connectivity. Score all	
			3c. Meximu	ther groundwater (3) recipitation (1) sesonal/intermittent surfa erennial surface water (la	ke or stream) (5) nly one and assign score.	Between stream/ Part of wetland/u Part of riparien o 3d. Duration inundation/set	flake and other human use (1) upland (e.g. forest), complex (1) r upland comidor (1) turation. Score one or dol chec ently inundated/saturated (4) uled/saturated (3)
			3e. Modifica		ic regime. Score one or double Check all disturbances obser	check and average.	rated in upper 30cm (12in) (1)
		_	다 (R	ecovering (3) ecent or no recovery (1)	tite dike weir stormwater input	filling/grading road bed/RR trac dredging other	
	5	81	Metric	4. Habitat Al	teration and Deve	elopment.	
	mar: 20 pts.		N R R R R R R R R R R R R R R R R R R R	one or none apparent (4) ecovered (3) gcovering (2) ecent or no recovery (1) development. Select onlessellent (7) ery good (6)	•		
			4c. Habitat	ood (5) loderately good (4) air (3) oor to fair (2) oor (1) alteration. Score one or one or none apparent (9)	double check and average.  Check all disturbances obse	rved	
)	ı	18		ecovered (6) ecovering (3) ecent or no recovery (1)	mowing grazing clearculting selective cutting woody debris removal toxic pollutants	shrub/sapling rer herbaceous/aqua sedimentation dredging farming nutrient enrichma	atic bed removal

ORAM v. 5.0 Field Form Quantitative Rating		
Site: WELMCB WILOCA Rater	(s): 72	HOOK Date: 9 17/09
18 Metric 5. Special Wetlan	nde	
	1401	
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland- Lake Plain Sand Prairies (Oak Ope Relict Wet Prairies (10) Known occurrence state/federal thr Significant migratory songbird/wate Category 1 Wetland. See Question	restricted hydro enings) (10) reatened or end or fowl habitat or	logy (5) Ingered species (10) Usage (10)
	·	erspersion, microtopography.
mex 20 pts. subtout 6a. Wetland Vegetation Communities.		Community Cover Scale  Absent or comprises <0.1ha (0.2471 acres) contiguous area
Score all present using 0 to 3 scale.  Aquatic bed Emergent Shrub	<u>0</u> 1	Present and either comprises small part of wattand's vegetation and is of moderate quality, or comprises a significant part but is of low quality.
Forest Mudflats Open water	2	Present and either comprises significant part of wettend's vegetation and is of moderate quality or comprises a small part and is of high quality
Other 6b. horizontal (plan view) Interspersion.	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality
Salect only one.		
High (5)	Navative D	escription of Vegetation Quality
Moderately high(4) Moderate (3)	low	Low app diversity and/or predominance of nonnative or disturbance tolerant native species
Moderately low (2) Low (1)	mod	Native app are dominant component of the vegetation, although normalive and/or disturbance tolerant native app
Thone (0)  6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for fist. Add		can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
or deduct points for coverage  Extensive >75% cover (-5)  Moderate 25-75% cover (-3)  Sperse 5-25% cover (-1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
Nearly absent <5% cover (0) Absent (1) 6d. Microtopography.	0	Open Water Class Quality Absent <0.1hs (0.247 acres)
Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.86 acres) or more
Amphibian breeding pools	Microtopoc	raphy Cover Scale
	0	Absent Present very small amounts or if more common
		of marginal quality  Present in moderate amounts, but not of highest
		quality or in small amounts of highest quality
	3	Present in moderate or greater amounts and of highest quality

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.eps.state.nb.unkland401/401.html
last revised 1 February 2001 jjm

GRAND TOTAL (max 100 pts)





Wetland WMAINCA



SURVEY TYPE: Blue	e Creek Wi		WETLAND ID				ID No.: WMAINCA				
			A55OCIATED STREAM ID NO: N/A					io: <b>N/A</b>	4		
DATE: 09/17/2009		CLIENT/I	ROJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm								
INVESTIGATORS: Hook			OUNTY: Ohio/V	/an Wert	ert ROVER FILE			AH091709A.cor	QUAD NAME: Scott		
Huc 12 Cone: 041000070	0703	Townsh	NSHIP: Union			Рното No.:					
WETLAND QUALITY: LOV	7			TYPE: Palus Emergent	trine						
	PLANT SPEC		STRATUM				ATOR	PERCENT COVER			
1. Polygonum sp.	Ψ7		He	erbaceous	Fac Wet		Wet	40 %			
<ol><li>Cyperus sp.</li></ol>					erbaceous		Fac		10 %		
3. Setaria sp.					erbaceous			ac	10 %		
4. Plantago major  5.				He	erbaceous		rac	Up	<u>10 %</u>		
6.								<del></del>	%		
PERCENT OF DOMINANT	SPECIES THAT AR	E OBL. FACW. FA	ACW+, FACW-,	FAC+. OR I	FAC (EXCLUI	DING FA	AC-): 100				
VEGETATION REMARKS:			<del></del>								
				Hydro	OLOGY						
RECORDED DATA?			Describe:								
DEPTH OF SURFACE WAT	er: N/A	(in)		DE	PTH TO SATE	JRATED	Soil: >1	6 (in)			
DEPTH TO FREE WATER 1	N PTT: None										
PRIMARY WETLAND IND	CATORS:			Sec	CONDARY W	BILAND	ORS:				
Water Marks			FAC Neutral Test								
Remarks:											
Soils											
MAP UNIT NAME (SERIES	AND PHASE): H	, 0 percent slope	es (flats)				Drai	NAGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP)		D OBSERVATION	Observations Confirm Mapped Type. If No, Soil Type Encountered?								
			Pro	FILE DE	ESCRIPT	ION					
DEPTH (INCHES)	DEPTH (INCHES) HORIZON MATRIX COLC (MUNSELL MOI				MOTTLE COLOR (MUNSELL MOIST)			•	TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-12+	В		10YR 4/1		10YR 4/6 30%			Clay Loam			
Livery to Para Laura and Ton											
Hydric Soil Indicator Listed Hydr	~		Gleyed					1			
							L	-			
Remarks:											
WETLAND DETERMINATION											
HYDROPHYTIC VEGETAT	Is This San	Is This Sampling Point Within a Wetland? Yes									
WEILAND HYDROLOGY I	RESENT? Yes	Is This An	Is This An Isolated Wetland? No								
HYDRIC SOILS PRESENT?	Yes										
NORMAL CIRCUMSTANCE	SIGNIFICAN	SIGNIFICANTLY DISTURBED: No				POTENTIAL PROBLEM AREA? No					
DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITERIA											

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators

are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

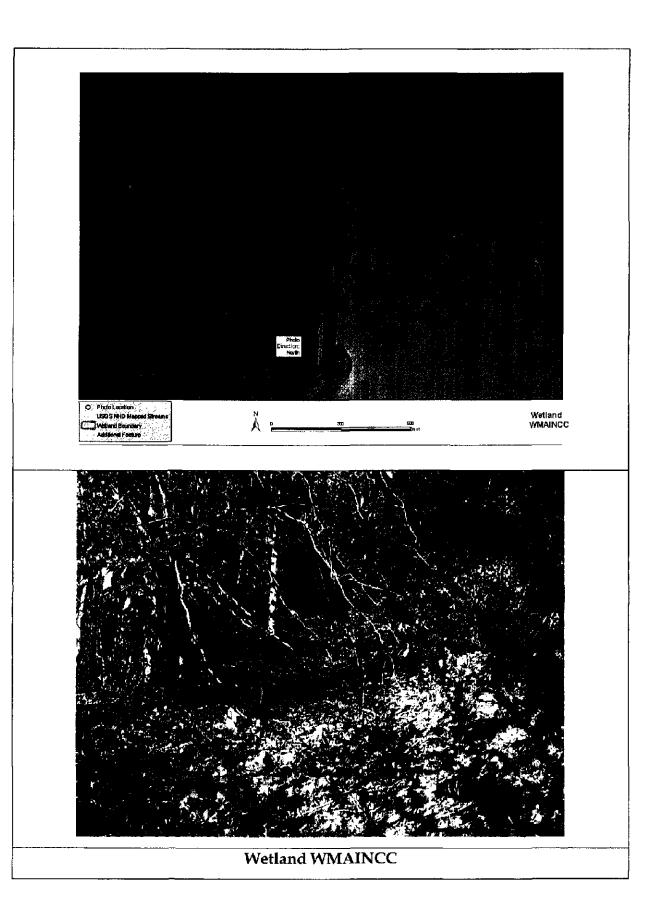
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 6.0 Field Form Quantitative Re	ding		
Site: WMAINICA	Rater(s): /2/+c	oh Date: 9	16/09
	Wetland Area (size).	·	·
>50 scre 25 to <5 10 to <2 3 to <10	s (>20.2ha) (6 pts) 0 acres (10.1 to <20.2ha) (5 pts) 5 acres (4 to <10.1ha) (4 pts) acres (1.2 to <4ha) (3 pts) 5 acres (0.12 to <1.2ha) (2pts)		
<0.1 acr	).3 acres (0.04 to <0.12ha) (1 pt) se (0.04ha) (0 pts) <b>Upland buffers and surr</b> o	ounding land use	
max 14 pts. subtotal 2a. Calculate aver WiDE. MEDIUM NARRO VERY N	rage buffer width. Select only one and assign suffers average 50m (164ft) or more around with the suffers average 25m to <50m (82 to <164ft) W. Buffers average 10m to <25m (32ft to <85 ARROW. Buffers average <10m (<32ft) around trounding land use. Select one or double one OW. 2nd growth or older forest, prairie, savan	score. Do not double check.  retland perimeter (7)  it) around weitignd perimeter (4)  2ft) around weitignd perimeter (1)  nd weitignd perimeter (0)  sok and sverage.	
LOW. C	old field (>10 years), shrubland, young second ATELY HIGH. Residential, fenced pasture, po	growth forest. (5)	fw
must 30 pts. subtotal 3e. Sources of Wi	Hydrology. ater, Score all that apply.	3b. Connectivity. Score all that apply.	
Other gr  Precipits Seasons	groundwater (5) oundwater (3) ition (1) ition (1) itintermittent surface water (3) it surface water (5)	100 year floodplain (1) Between stream/lake and other t Part of wattand/upland (e.g. forei Part of ripertan or upland corrido 3d. Duration inundation/saturation. Score	st), complex ( r (1)
>0.7 (27 0.4 to 0. <0.4m (-	7m (15.7 to 27.6in) (2)	Semi- to permanently inundated/ Regutarly inundated/saturated (3 Seasonally inundated (2) Seasonally saturated in upper 30	/saturated (4) i)
None or Recover Recover	none apperent (12) Check all disturbances of (7)		
	Habitat Alteration and De	•	
None or Recover	none apparent (4) ed (3)		
4b. Habitat devek Exceller Very gov Good (5	pment. Select only one and assign score. t (7) od (6)		
	ion. Score one or double check and average.		······································
Recover Recover	ing (3) or no recovery (1) grazing clearcutting selective cutting	shrub/sapiling removal herbaceous/equatic bed removal sedimentation dredging	
quickotal this page	woody debris remo	farming nutrient enrichment	

Site:	WMA	NCA		Rater(s):	R	Hach	Date:	9/16/09
	21 ministrated first pa	<b> </b>						
_	21	Metr	ic 5. Special W	/etlands	•			
ensex 60 pts.	aubtotal		that apply and score as ind		_			
			Bog (10)					
			Fen (10)					
			Old growth forest (10) Meture forested wetland (5	3				
		-	Lake Erie coestal/tributary		bricted hyd	rology (10)		
		-	Lake Erie ooastal/tributary	wetland-restric	sted hydrok			
			Lake Plain Sand Prairies (	Dak Openings)	(10)		•	
		<u> </u>	Relict Wet Prairies (10)					
		<u> </u>	Known occumence state/fe Significant migratory songt					
		⊢	Category 1 Wetland. See			~		
		I <u> </u>	1					
2	23	Metr	ic 6. Plant com	munitle	s. inte	erspersion, micr	otopogra	iphy.
max 20 pès.	subtotal		land Vegetation Communitie			ommunity Cover Scale		
			present using 0 to 3 scale.		0	Absent or comprises <0.1he	(0.2471 acres) (	sens euologita
			Aquatic bed		1	Present and either comprise		
		1	Emergent			vegetation and is of mode		imprises a
		<u> </u>	Shrub   Forest	-	2	aignificant part but is of low Present and either comprise		of watton its
		-	Mudflets		-	vegetation and is of model		
		<u> </u>	Open water			part and is of high quality		
			Other	_	3	Present and comprises sign		ore, of wetland's
			zontal (plan view) interspersi	ion.		vegetation and is of high q	uality	
		Select or	ny one. ] High (5)	<b>N4</b> .	western Fin	scription of Vegetation Qua	Mar	
		-	Moderately high(4)	1.	low	Low spp diversity and/or pre		ngative or
			Moderate (3)			disturbance tolerant native		
			Moderately low (2)		mod	Native spp are dominant con	nponent of the vi	getation,
			Low (1)			although nonnative and/or		
			None (0) prage of investive plants. Re	ine		can also be present, and a moderately high, but gener		
			1 ORAM long form for list.			threatened or endangered		e or impe
			t points for coverage	_	high	A predominance of native sp		ative app
			Extensive >75% cover (-5)		•	and/or disturbance telerare		
			Moderate 25-75% cover (-	3)		absent, and high app diver		
		<u> </u>	Sparse 5-25% cover (-1)   Nearly absent <5% cover (	<i>~</i>		the presence of rare, threa	tened, or endend	ered soo
		-	Absent (1)		elflat and	Open Water Class Quality		
			otopography.		0	Absent <0.1ha (0.247 acres	)	
		Score all	present using 0 to 3 scale.	_	1	Low 0.1 to <1ha (0.247 to 2.		
			Vegetated hummucks/tuss		2	Moderate 1 to <4ha (2.47 to		
		<b> </b>	Coerse woody debris >150		3	High 4ha (9.88 acres) or mo	<u> </u>	
		<b> </b>	Standing dead >25cm (10) Amphibian breeding pools	•	ciolonocu	aphy Cover Scale		
		<u> </u>	To the second of second district	<u> </u>	0	Absent		
				_	1	Present very small amounts	or if more comm	on
			•	_		of marginal quality		
					~	I Change of in Standards		

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetlend categories at the following address: http://www.eps.atate.ch.ue/dew/401/401.html last revised 1 February 2001 jjm

quality or in small amounts of highest quality Present in moderate or greater amounts





SURVEY TYPE: Blue	Creek W	rm			WETLAND ID NO.: WMAINCC ASSOCIATED STREAM ID NO: SMAINCA					
DATE: 09/18/2009	<del></del>		CLIENT/Pro	DIECT NAME	Heartlan			e Creek Wind Fa		
					-					Over Name Contra
INVESTIGATORS: Hook			STATIFICOU	NTY: Ohio/1	van Wert	ROVER FILE: RAH091809A.cor QUAD NAME: Scott				
Huc 12 Code: 041000070	701		TOWNSHIP:	Union			Рнот	o No.:		
WETLAND QUALITY: Med			D TYPE: Palus : Forested	trine						
	PLANT SPE			S	TRATUM		Indicator		PERCENT COVER	
1. Quercus palustris			Tree		Fac Wet		20 %			
2. Cephalanthus occider	ntalis					Shrub	_	Obligate		10 %
3. Carex frankii					н	lerbaceous		Obligate		20 %
4. 5.		·	<del></del>							% %
6.					<del></del>	· · · · · · · · · · · · · · · · · · ·	_			
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, F	ACW, FAC	W+, FACW-,	,FAC+, OR	FAC (EXCLUE	ING FA	C-): 100		
VEGETATION REMARKS:	old railroad di	ch								
-					HYDR	OLOGY				
RECORDED DATA?				DESCRIBE:			•			
DEPTH OF SURFACE WAT	er: N/2	A (in)			D	BPTH TO SATI	RATED	Sou: >16 (in)		
DEPTH TO FREE WATER II	N PIT: Nor	e (in)								
PRIMARY WETLAND INDI	CATORS:							Indicators:	_	
Drift Lines					La	ocal Soil Surv	еу		_	
Water Marks					FA	AC Neutral To	est			
REMARKS: old railroad	ditch									4
	<del></del> -		<u> </u>		So	DILS		<del></del>		
Map Unit Name (Series	AND PHASE): I	lovtville	silty clay, 0	percent slope		7120			DRAINA	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP):		<del></del>		<u> </u>		M MAPPED TY	PE. IF N	o, Soil Type Encou		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						ESCRIPT				
				**		Ī				T
DEPTH (INCHES)	HORIZO	N		IATRIX COL UNSELL MO				COLOR L MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-4	A			10YR 4/2			10YR 4,	/6 10%		Silt Loam
4+	В			10YR 4/1			7.5Y 5/	6 30%		Silt Loam
HYDRIC SOIL INDICATOR	<del></del>	т		·IJ		T		· · · · · · · · · · · · · · · · · · ·		
Listed Hydr	К	1	G	leyed				<u> </u>		
Remarks:										
				WETLA	ND DE	TERMIN	ATIO	N	· · · · · ·	
Hydrophytic Vegetati	ON PRESENT?	(es				INT WITHIN				· · · · · · · · · · · · · · · · · · ·
WETLAND HYDROLOGY P						WETLAND?				
HYDRIC SOILS PRESENT?										
NORMAL CIRCUMSTANCE				SIGNIFICAN	NTLY DISTE	JRBED: No		POTENTIAL	PROBL	EM AREA? No
Di	ESCRIPTIO	N OF	WETLAN	ND CROS	SSING T	TYPES AN	ID W	ETLAND QUA	LITY	CRITERIA
	AND: no indic	ation of st	ress or dist	urbance in w	etland or a	idjacent area	- divers	e and mature vegeta	ation ty	es – hydrologic and soil indicators

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



SURVEY TYPE: Blue	e Creek		e.		WETLAND ID NO.: UMAINCC ASSOCIATED WETLAND ID NO: WMAINCC				
DATE: 09/18/2009	<u> </u>	CLIENT	Project Name: He	<del></del>	.C./ Blue Creek Wind				
INVESTIGATORS: Hook		STATE/C	COUNTY: Ohio/Van	Wert	QUAD NAME: Scott				
Huc 12 Code: 041000070	701	Townsi	up: Union		Рното No.:				
WETLAND QUALITY: N/A				etland Type: N/A ibtype: Upland					
<u>,                                      </u>	PLANT SPECI			STRATUM	INDICATOR	PERCENT COVER			
1. Crataegus sp				Canopy	Fac Up	40 %			
2. Lonicera maackii				Shrub	Upland	50 %			
3. Solidago canadensis				Herbaceous	Fac Up	20 %			
4. Toxicodendron radica	ns	<u></u>		Herbaceous	Fac	30 %			
5. 6.						<u>%</u>			
PERCENT OF DOMINANT S	SPECIES THAT ARE	OBL, FACW, F.	ACW+, FACW-, FAC	C+, OR FAC (EXCLU	DING FAC-): 30				
VEGETATION REMARKS:									
			H	YDROLOGY					
RECORDED DATA?			DESCRIBE:						
DEPTH OF SURFACE WAT	er: N/A	in)	·····	DEPTH TO SAT	URATED SOIL: >16 (in)				
DEPTH TO FREE WATER IN	PIT: None	(in)							
PRIMARY WETLAND INDI	CATORS:			SECONDARY W	VETLAND INDICATORS:				
None									
						<u>-</u>			
Remarks:									
				SOILS					
MAP UNIT NAME (SERIES	AND PHASE): He	ytville silty clay	7, 0 percent slopes (fl	lats)		DRAINAGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP):	<del></del>	Fie	LD OBSERVATIONS C	ONFIRM MAPPED T	YPE. IF NO, SOIL TYPE EN	COUNTERED?			
			Profil	E DESCRIPT	TON				
DEPTH (INCHES)	Horizon		MATRIX COLOR (MUNSELL MOIST	I	MOTTLE COLOR MUNSELL MOIST)	Texture, Concretions, Structure, etc.			
0-8	A		10yr 4/2		0	Silt Loam			
B+	В		10yr 4/2		10yr 4/6 20%	Silt Loam			
HYDRIC SOIL INDICATOR	S:				····				
			· · · · · · · · · · · · · · · · · · ·			L			
Remarks:									
			WETLANI	DETERMIN	IATION	<del></del>			
Hydrophytic Vegetati	ON PRESENT? No	· · · · · · · · · · · · · · · · · · ·		ING POINT WITHIN					
			<u> </u>	LATED WETLAND?					
WETLAND HYDROLOGY F					· ·				
	Yes		l l						
WETLAND HYDROLOGY F HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANCE			SIGNIFICANTLY	DISTURBED: No	POTENT	rial Problem Area? No			
HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANCE	S? Yes	OF WETT				TIAL PROBLEM AREA? NO UALITY CRITERIA			

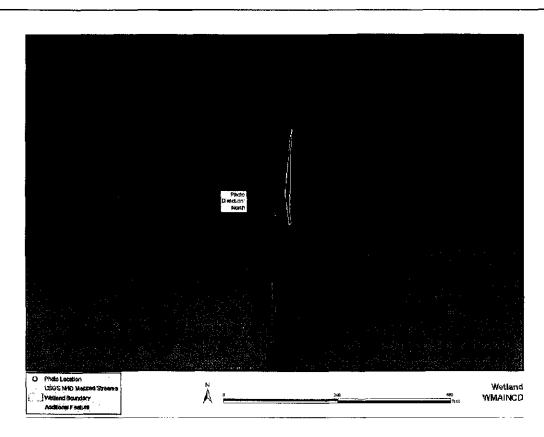
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v.	5.0 Field Form Qu	entitative Rating				<del></del>		
Site:	WMA	NCC.	Rater(s):	HOOK	•-	Date: '	7(18	09
mgox 6 plax.		tric 1. Wetland A  t one size class and assign sco >50 acres (>20,2ha) (5 pts) 25 to <50 acres (10.1 to <2 10 to <25 acres (4 to <10.1 3 to <10 acres (1.2 to <4ha 0.3 to <3 acres (0.12 to <1. 0.1 to <0.3 acres (0.04 to <	re. ) 20.2he) (5 pts) (ha) (4 pts) a) (3 pts) .2ha) (2pts) 50.12ha) (1 pt)		.aere		•	
mex 14 pts.	subtotal 28. C	tric 2. Upland but seleculate average buffer width. WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re-	Select only one as im (164ft) or more 25m to <50m (82 to 10m to <25m (4 average <10m (<10 to Select one or do or older forest, prais), shrubland, your sidential, fenced p	nd assign acore. Do eround wetland part to <164ft) around votant to <26ft) around votant occurs around wetland cubic check and average accord growth for acture, park, conse	o not double check. rimeter (7) welland perimeter (4) d welland perimeter (1) d perimeter (0) rerage. life area, etc. (7) rest. (6) revation tillage, new fall	)		
france 30 plan.	aubiotal 3e. 3	tric 3. Hydrology tources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Sessonal/Intermittent surfa Perennial surface water (la Raximum water depth. Select or >0.7 (27,6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (4) Co.4m (<15.7in) (1) Rodifications to natural hydrolog None or none appearent (12 Becovered (7) Recovering (3) Recent or no recovery (1)	t apply.  Ice water (3)  Ike or stream) (5)  Ily one and assign  (2)	3d. ( n score. one or double chec irbances observed	Connectivity. Score all 100 year floodpic Between stream Bart of wetland/L Part of riperien of Duration inundation/sat Semi- to permer Regularly inunck Seasonally inunck seasonally satur k and average.  point source (not filling/grading road bed/RR trad deedging other	ain (1) /lake and other upland (e.g. for upland corri- turation. Score attration. Score turation. Score attration. Score attr	rest), or idor (1) re one o ed/satur I (3) 30cm (	omplex (1) or dbt check rated (
8 max 20 pts.	subtoist 4a. S	Substrate disturbance. Score or None or none apparent (4) Bacovered (3) Recovering (2) Recent or no recovery (1) Isbitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Isbitat alteration. Score one or None or none apparent (9) Becovered (6) Recovering (3) Recent or no recovery (1)	teration are or double check  y one and assign  double check and  Check all dista  moving grazing clearcutti soloctive	nd Develor and average.  score.  average.  arbances observed outling abris removal		atic bed remo	wai	

Site:	WM	1AINCC	Rater(s):	72	Hook	'h Date: ' 9 [18]09
55 max 10 pts.	21 blocked first pe	Metric 5. Specific Sp	ore as indicated.  (10)  retiand (5)  fiributary wetland-unrestri  fiributary wetland-restricts  Prairies (Oak Openings) ( s (10)	icted Invited (10)	irology (10) logy (5)	
			e state/federal threatened			• .
			ory songbird/water fowl hi nd. See Question 1 Qual			
					,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•
13	29	Metric 6. Plani	t communities	s. inf	erspersion, r	nicrotopography.
rank 20 pts.	eublobi	6a. Wetland Vegetation Co		-	Community Cover Sca	
		Score all present using 0 to		Ö		<0.1ha (0.2471 acres) contiguous erea
		Aquatic bed		1		mprises small part of wetland's
		Emergent Shrub			L T	moderate quality, or comprises a
		Forest		2	Significant part but I	mprises significant part of wetland's
		Mudiets		•••		moderate quality or comprises a small
		Open water		_	part and is of high o	• = =
		Other	<del></del>	3	-	es significant part, or more, of wetland's
		6b. hortzontal (plan view) ir	nterspersion.		<u>Yegetation</u> and is of	high quality
		Select only one. High (5)	Nam	-Hva D	escription of Vegetatio	va Curatilis
		Moderately high(4		low		or predominance of nonnative or
		Moderate (3)			disturbance toleran	
		Mederately low (2	)	mod	1	ant component of the vegetation,
		Low (1)	i.		[	and/or disturbance tolerant native spp
		None (0) 6c. Coverage of invasive pl	ants Refer			i, and species diversity moderate to it generally w/o presence of rere
		to Table 1 ORAM long form			threatened or endar	
		or deduct points for coverag	<b></b>	high		itive species, with nonnative spp
		Extensive >75% t			3	clerant native spp absent or virtually
		Moderate 25-75%				p diversity and often, but not always,
		Sperse 5-25% co Nearly absent <5	-		Una presence or rare	, threatened, or endangered spp
		(Absent (1)		lflat an	i Open Water Class Qu	allty
		6d. Microtopography.		0	Absent <0.1ha (0.24)	
	•	Score all present using 0 to		1	Low 0.1 to <1ha (0.24	
		Vegetated humm		2	Moderate 1 to <4ha (	
		Coarse woody de Standing dead >2	` · ·	3	High 4ha (9.88 acres)	or more
		Amphibian breedi	• •	rotopo	raphy Cover Scale	
				0	Absent	
				1		nounts or if more common
					of marginal quality	
		1		2		amounts, but not of highest mounts of highest quality
				3	Present in moderate	
						Bar Address Abbitacing range .

Raise to the most recent ORAM Score Celibration Report for the scoring breakpoints between walland categories at the following address: http://www.sps.state.oh.ue/dew/401/401.html last revised 1 February 2001 jjm





Wetland WMAINCD



			_						
SURVEY TYPE: Blue	Creek Wind I	arm					WMAINCD		
					Associat	ED STREAM ID	No: N/A		
DATE: 09/18/2009		CLIENT/P	PROJECT NAME: ]	Heartland	d Wind LL	C./ Blue Cre	ek Wind Farm		
Investigators: Hook		STATE/Co	OUNTY: Ohio/V	an Wert ,	t, ROVER FILE: RAH091809A.cor QUAD NAME: Scott				
HUC 12 CODE: 041000070	IP: Union			Рното No.:					
WEILAND QUALITY: Med	ium			WETLAND SUBTYPE:	Type: Palus Forested	trine			
	PLANT SPECIES			S	RATUM	INI	HCATOR	PERCENT COVER	
1. Fraxinus pennsylvani	·a				Tree		ac Wet	20 %	
2. Ulmus americana					Shrub		c Wet -	10 %	
Quercus palustris     4.				H	rbaceous	F	ac Wet	20 % %	
5.								%%	
6.								%	
PERCENT OF DOMINANT S	PECIES THAT ARE OB	L, FACW, FA	ACW+, FACW-, I	FAC+, OR I	FAC (exclui	DING FAC-): 10	00		
VEGETATION REMARKS:	old railroad ditch								
				Hydro	DLOGY				
RECORDED DATA?	. <u> </u>		Describe:						
DEPTH OF SURFACE WAT	er: N/A (in)			DE	ртн то 5аті	JRATED SOIL:	>16 (in)		
DEPTH TO FREE WATER IN	Prr: None (in)								
PRIMARY WETLAND INDI	CATORS:			Sec	CONDARY W	ETLAND INDIC	ATORS:		
Drift Lines				Lo	cal Soil Surv	ey		· · · · · · · · · · · · · · · · · · ·	
Water Marks					FAC Neutral Test				
REMARKS: old railroad	fitch								
	<del></del>			So	ILS				
MAP UNIT NAME (SERIES	AND PHASE): Hoytvi	ille silty clay,	, 0 percent slope	s (flats)			DRAIN	NAGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):		FIEL	D OBSERVATION	s Confirm	MAPPED TY	re. If No, Soi	L Type Encounteri	ED?	
		<del></del>			SCRIPT				
Depth (Inches)	Horizon		MATRIX COLO MUNSELL MOI			IOTTLE COLO		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-4	Α		10YR 4/2			10YR 4/6 10%		Silt Loam	
4+	В		10YR 4/1			7.5Y 5/6 25%		Silt Loam	
HYDRIC SOIL INDICATOR			<u> </u>				<del></del>		
Listed Hydr	ic		Gleyed						
Remarks:									
			WETLA	ND DE	<b>FERMIN</b>	ATION			
HYDROPHYTIC VEGETATI	on Present? Yes		IS THIS SAN	IPLING POI	NT WITHIN	WETLAND?	(es		
WETLAND HYDROLOGY F	RESENT? Yes		Is This An	ISOLATED V	WETLAND?	Yes			
HYDRIC SOILS PRESENT?	Yes								
NORMAL CIRCUMSTANCE	s? Yes		SIGNIFICAN	TLY DISTU	RBED: No		POTENTIAL PROI	blem Area? No	
Di	SCRIPTION O	F WETL	AND CROS	SING T	YPES AN	ID WETL	AND QUALIT	Y CRITERIA	
Di	SCRIPTION O	F WETL	AND CROS	SING T	YPES AN	VD WETL	AND QUALIT	Y CRITERIA	

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.



SURVEY TYPE: Blue	Creek					ND ID No.: UMA				
					ASSOCIATED WETLAND ID NO: WMAINCD					
DATE: 09/18/2009			CLIENT/PROJECT NAME	: Heartlan	and Wind LLC./ Blue Creek Wind Farm					
Investigators: Hook			STATE/COUNTY: Ohio/	Van Wert	QUAD NAME: Scott					
Huc 12 Code: 041000070	701		Township: Union			Рното No.:				
WETLAND QUALITY: N/A			······································	WETLANI	TYPE: N/A Upland					
	PLANT SPEC	TIES		s	TRATUM	INDICATOR		Percent Cover		
1. Crataegus sp.				<del>-                                    </del>	Shrub	Fac Up		20 %		
2. Carya ovata					Салору	Fac Up -		50 %		
3. Elymus virginicus					erbaceous	Fac Wet -		20 %		
4. Toxicodentron radica	ns		<del></del>	<u> </u>	erbaceous	Fac		20 %		
5.				<del></del> -				<u>%</u>		
6.				ــــــــــــــــــــــــــــــــــــــ						
PERCENT OF DOMINANT	PECIES THAT A	E OBL, I	ACW, FACW+, FACW	-, FAC+, or	FAC (EXCLUE	DING FAC-): 40				
VEGETATION REMARKS:										
	·			HYDR	OLOGY	`				
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WAT	er: N/A	(in)		מ	ергн то Ѕат	URATED SOIL: >16 (în)		······		
DEPTH TO FREE WATER I	N PIT: Non	e (in)	<del></del>							
PRIMARY WETLAND IND	CATORS:			St	CONDARY W	ETLAND INDICATORS:				
None				Ī						
140.0										
Remarks:							<del></del>	`		
				So	ILS					
MAP UNIT NAME (SERIES	AND PHASE): I	loytville	silty clay, 0 percent slo	pes (flats)			DR	AINAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)			FIELD OBSERVATION	ONS CONFIR	M MAPPED T	PE. IF NO, SOIL TYPE EN	COUNT	ERED?		
			Pro	OFILE D	ESCRIPT:	ION				
DEPTH (INCHES)	Horizo	N	MATRIX CO (MUNSELL M			NOTTLE COLOR (UNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-8	А		10yr 4/2			0	<u> </u>	Silt Loam		
8+	В		10yr 4/2			10yr 4/6 20%		Silt Loam		
							<u> </u>			
HYDRIC SOIL INDICATOR	s:	_								
		]								
Remarks:					•					
			WETL	AND DE	TERMIN	ATION				
HYDROPHYTIC VEGETAT	ON PRESENT?	Jo.				A WEILAND? No				
WETLAND HYDROLOGY		1,5			WETLAND?					
HYDRIC SOILS PRESENT?										
NORMAL CIRCUMSTANCE			Significa	ANTLY DISTU	REED: No	POTEN	TIAL P	ROBLEM AREA? No		
		N OF				ND WETLAND Q				
	COCKIL I I C	IN OF	THE LAND CRU	DATICO	LICES AL	AD ARETOWN A	UAL	ALL CALLERIA		
HIGH QUALITY WETE are characteristic of the s								on types - hydrologic and soil indicators ien observed.		

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

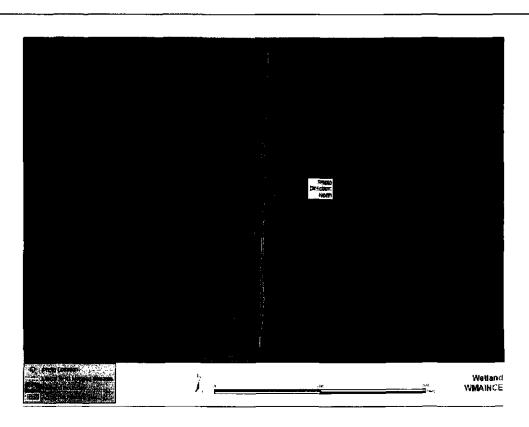
Site:	WMAINCD.	Rater(s):	Hack	Date: 9/18/09
max 6 pts.	10 to <25 acres (	ssign score. ha) (6 pts) 10.1 to <20.2ha) (5 pts) 4 to <10.1ha) (4 pts)	l <b>.</b>	
<u></u>	3 to <10 acres (1 0.3 to <3 acres (0 0.1 to <0.3 acres <0.1 acres (0.04to )	0.12 to <1.2ha) (2pts) (0.04 to <0.12ha) (1 pt)	0.15	. '
enux 14 phs.	2a. Calculate average buffer wide. Buffers at MEDIUM. Buffer NARROW. Buffer VERY NARROW.  2b. Intensity of surrounding	er width. Select only one as verage 50m (184ft) or more s average 25m to <50m (82 irs average 10m to <25m ( . Buffars average <10m (< ; land use. Select one or d	surrounding land in dassign score. Do not double the around wetland perimeter (7) to <164ft) around wetland perimet 32ft to <82ft) around wetland perimeter (0) louble check and average. If ire, savennah, wildlife area, etc. (7)	eck. ier (4) ieter (1)
15 max 30 pts.	LOW. Old field (: MODERATELY H	•10 years), shrubland, your IIGH. Residential, fenced p fustrial, open pasture, row o Ology. ore all that apply.	ng second growth forest. (5) sesture, park, conservation tillage, r cropping, mining, construction. (1)  3b. Connectivity. Se	new fallow field. (3)
	Other groundwate Precipitation (1) Seasonst/intermit Perennial surface 3c. Medimum water depth. >0.7 (27,6in) (3) 0.4 to 0.7m (15.7	or (3)  Itent surface water (3)  water (lake or stream) (5)  Select only one and assign  to 27.6in) (2)	Between a Part of we Part of rip  3d. Duration inunda n score.  Semi- to p Regularly Seasonal	stream/lake and other human use (1 altand/upland (e.g. forest), complex (satian or upland comidor (1) tion/saturation. Score one or dbi ch permanently inundated/saturated (4) inundated/saturated (3) by inundated (2) by saturated in upper 30cm (12in) (1)
	Recovering (3) Recent or no rece	carent (12) Check all distance ditch	point Bour filling/grac road bed/i	
mex 20 pbs.	Metric 4. Hable substrate disturbance.  None or none approximate the substrate disturbance.  None or none approximate the substrate disturbance.  Recovering (2)  Recent or no recovering (2)  Recent or no recovering (2)  Excellent (7)  Very good (8)	Score one or double check parent (4) overy (1)		
	Good (5)  Moderately good Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Sco  None or none app  Bacovered (6)	re one or double check and	urbances observed shrub/sap	aling removali
	Recovering (3) Recent or no reco	overy (1) grazing clearcutti	ing sadiments cutting dredging sbris removal farming	us/aquatic bed removel

last revised 1 February 2001 ilm

ORAM v.	5.0 Field F	orm Quanti	Itative Rating	•						
Site:	MM	AIN C	.D	Rater(s):	2	HOOK		Date:	9	18/09
5	34 39		ic 5. Special \	Watlande						
40 110	<u>ــــــــــــــــــــــــــــــــــــ</u>		•							
mex 10 pts.	sub <b>iot</b> is		that apply and score as i Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributa Lake Plain Sand Prairies Relict Wet Prairies (10) Known occurrence state Significant migratory sor Category 1 Wetland. Se	(5) ry wettand-unrestrict ry wettand-restrict a (Oak Openings) Viederal threatene gbird/water fowl h	ed hyd (10) d or en ablitat (	rology (5) dangered species (10) or usage (10)	ı			
	Τ	╻┖╜	Category I Westerlo. Se	50 CALGEBOOT 1 CALG	mau vo	rossig (-10)				
3	42	Metr	ic 6. Plant co	mmunitie:	s, in	terspersion	, micro	topogr	aph	٧.
max 20 pts.	eubtotal		and Vegetation Commun			n Community Cover				<b>.</b>
	•		present using 0 to 3 soal		0	Absent or compris	es <0.1ha (0.	.2471 acres)	contig	udus erea
			Aquatic bed		1	Present and either	•	-		
			Emergent			vegetation and i			ompris	16 <b>5</b> B
			Shrub	_		significant part b				
		- 14	Forest		2	Present and either	•	-		
-		<b> </b>	Muditats Open water			vegetation and is pert and is of hig		dranth or co	accipation.	8\$ द्रा इंश <b>रक्ष</b> ।
		<u> </u>	Other		3	Present and comp		ent nort or n	ione of	( wellend's
		6b. horiz	ontal (plan view) interspe	rision.	•	vegetation and is			1010, 01	Manning 2
		Salect on								
			Hilgh (5)	<u>Nar</u>	retive	Description of Veget	ation Quality	,		
			Moderately high(4)	<del></del>	low	Low spp diversity:	•		onnativ	/6 Of
			Moderate (3)			disturbance tole				
			Moderately low (2)		mod	Native spp are dor	•		-	
			Low (1) None (0)			can also be pres		-		• • •
			rage of invasive plants.	Refer		moderately high				
			ORAM long form for list			threatened or en	-	-		
			points for coverage		high	A predominance o			native :	spp
			Extensive >75% cover (	•		and/or disturban	ce tolerant na	ative spp abs	ent or	virtually
			Moderate 25-75% cover			absent, and high				
			Sparse 5-25% cover (-1) Naárty absent <5% cove	•		the presence of	rare, threaten	ed, or ender	deled	spp
		77	Absent (1)	` '	dflat a	ed Open Water Class	Quality			
			otopography.	111.00	0	Absent <0.1ha (0				
			present using 0 to 3 scal	<b>—</b>	1	Low 0.1 to <1ha (0		acres)		
			Vegetated hummucks/tu		2	Moderate 1 to <4				
			Coarse woody debris >1	5cm (6in)	3	High 4ha (9.88 ac	res) or more			
			Standing dead >25cm (1	•						
			Amphibian breeding poo	ols <u>Mile</u>		graphy Cover Scale	- <u>-</u>			_
				-	1	Absent Present very email	emounts or	il more com-	MO-1	_
•					•	of marginal qual		THE COURSE	(iOI)	
	•				2	Present in modera		out not of hig	hest	
					_	quality or in sma		_		
					3	Present in modera				_

Refer to the most recent CRAM Score Calibration Report for the scoring breakpoints between weithind categories at the following address: http://www.epe.state.oh.us/dsw/401/401.html
last revised 1 February 2001 jjm

니가GRAND TOTAL (max 100 pts)





Wetland WMAINCE



SURVEY TYPE: Blue	e Creek Wi	nd Farm			WEILAN	o ID No.: WN	MAINCE			
				D STREAM ID NO:		The state of the s				
DATE: 09/18/2009		CLIENT/	Project Name: H	leartland	Wind LLC	./ Blue Creek W	ind Farm			
Investigators: Hook	: Hook STATE/COUNTY: Ohio/Van Wert					ROVER FILE: RAH091809A.cor QUAD NAME: Scott				
Huc 12 Code: 041000070	ur: Union			Рното <b>No.</b> :						
WETLAND QUALITY: Mee	dium			WETLAND 1 Subtype: F	TYPE: Palust orested	ine				
	PLANT SPE	CIES		STI	RATUM	Indicat	OR	PERCENT COVER		
1. Fraxinus pennsylvani	ca.				Тгее	Fac We		70 %		
2. Carex sp. 3.			<del></del>	Her	baceous	Fac We	et	10 % %		
4.		****				<del> </del>				
5.								- %		
6.								<u>%</u>		
PERCENT OF DOMINANT	SPECIES THAT AI	REOBL, FACW, F	ACW+, FACW-, F	AC+, or F.	AC (EXCLUDI	NG FAC-): 100				
VEGETATION REMARKS:	old railroad dit	ch								
			I	Hydro	LOGY					
RECORDED DATA?			Describe;							
DEPTH OF SURFACE WAT	er: N/A	\ (in)		DEP	TH TO SATU	ATED SOIL: >16 (i	n)			
DEPTH TO FREE WATER I	NPIT: Non	e (in)								
PRIMARY WETLAND INDI	ICATORS:			SECO	SECONDARY WETLAND INDICATORS:					
Drift Lines				Loca	d Soil Surve	t				
Water Marks				FAC	Neutral Te	at				
REMARKS: old railroad	ditch					·····				
REMARKS: Old railroad	ditch			Son	LS					
REMARKS: old railroad  MAP UNIT NAME (SERIES		loytville silty clay	, 0 percent slopes		LS		DRAINA	AGE CLASS: Very poorly drained		
	and Phase): F	· · · · · · · · · · · · · · · · · · ·	<del> </del>	(flats)		e. If No, Soil Typi				
Map Unit Name (Series	and Phase): F	· · · · · · · · · · · · · · · · · · ·	D OBSERVATIONS	(flats) CONFIRM l						
Map Unit Name (Series	and Phase): F	Fiel	D OBSERVATIONS	(flats) CONFIRM 1 LE DES	Mapped Typ SCRIPTIC MC					
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)	S AND PHASE): F	Fiel	D OBSERVATIONS PROF MATRIX COLO	(flats) CONFIRM 1 LE DES	MAPPED TYP SCRIPTIO Mo (ML	ON OTTLE COLOR		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUF)  DEPTH (INCHES)	s and Phase): F : Horizo	Fiel	D OBSERVATIONS PROF MATRIX COLO: MUNSELL MOIS	(flats) CONFIRM 1 LE DES	MAPPED TYP SCRIPTIC MC (Mu	ON OTTLE COLOR ONSELL MOIST)		TEXTURE, CONCRETIONS,		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+	HORIZO A B	Fiel	D OBSERVATIONS PROF MATRIX COLO: MUNSELL MOIS 10YR 4/2	(flats) CONFIRM 1 TILE DES	MAPPED TYP SCRIPTIC MC (Mu	ON OTTLE COLOR INSELL MOIST) OYR 4/610%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4	HORIZO A B	Fiel	D OBSERVATIONS PROF MATRIX COLO: MUNSELL MOIS 10YR 4/2	(flats) CONFIRM 1 TILE DES	MAPPED TYP SCRIPTIC MC (Mu	ON OTTLE COLOR INSELL MOIST) OYR 4/610%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+	HORIZO  A B	Fiel	D OBSERVATIONS PROF MATRIX COLO: MUNSELL MOIS 10YR 4/2	(flats) CONFIRM 1 TILE DES	MAPPED TYP SCRIPTIC MC (Mu	ON OTTLE COLOR INSELL MOIST) OYR 4/610%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR	HORIZO  A B	Fiel	PROF MATRIX COLO MUNSELL MOIS  10YR 4/2  10YR 4/1	(flats) CONFIRM 1 TILE DES	MAPPED TYP SCRIPTIC MC (Mu	ON OTTLE COLOR INSELL MOIST) OYR 4/610%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR Listed Hydr	HORIZO  A B	Fiel	PROF MATRIX COLO MUNSELL MOIS  10YR 4/2  10YR 4/1	(flats) S CONFIRM I FILE DES	MAPPED TYP SCRIPTIO (MU	ON OTTLE COLOR ONSELL MOIST) OYR 4/610%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR Listed Hydr	HORIZO  A  B	N (	D OBSERVATIONS PROF MATRIX COLOR MUNSELL MOIS 10YR 4/2 10YR 4/1 Gleyed WETLAN	(flats) S CONFIRM I TILE DES R ST)	MAPPED TYP SCRIPTIC MG (MU	ON OTTLE COLOR ONSELL MOIST) OYR 4/610%		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR Listed Hydr	HORIZO  A  B  SS:	N (	D OBSERVATIONS PROF MATRIX COLOR MUNSELL MOIS 10YR 4/2 10YR 4/1 Gleyed WETLAN	(flats) CONFIRM I FILE DES R ST)  ID DET	MAPPED TYPESCRIPTIC  MO (MU  1  2  ERMINA	ON  OTTLE COLOR INSELL MOIST)  OYR 4/610%  SY 5/625%  TION  WEILAND? Yes		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR Listed Hydr REMARKS:	HORIZO  A B SS: cic	N (	D OBSERVATIONS PROF MATRIX COLOR MUNSELL MOIS 10YR 4/2 10YR 4/1 Gleyed WETLAN Is This Same	(flats) CONFIRM I FILE DES R ST)  ID DET	MAPPED TYPESCRIPTIC  MO (MU  1  2  ERMINA	ON  OTTLE COLOR INSELL MOIST)  OYR 4/610%  SY 5/625%  TION  WEILAND? Yes		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR Listed Hydr REMARKS:  HYDROPHYTIC VEGETAT. WETLAND HYDROLOGY	HORIZO  A B  SS: cic  LON PRESENT? Yes Yes	N (	D OBSERVATIONS PROF MATRIX COLOR MUNSELL MOIS 10YR 4/2 10YR 4/1 Gleyed WETLAN Is This Same	(flats) S CONFIRM I ILE DES R ST)  ND DET PLING POIN SOLATED W	MAPPED TYP SCRIPTIO MO (MU  1 2 ERMINA IT WITHIN A VETLAND? YO	ON OTTLE COLOR INSELL MOIST)  OYR 4/6 10%  I.5Y 5/6 25%  TION WEILAND? Yes		TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam Silt Loam		
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-4 4+  HYDRIC SOIL INDICATOR Listed Hydr REMARKS:  HYDROPHYTIC VEGETAT. WETLAND HYDROLOGY I HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANCE	HORIZO  A B  SS: cic  ION PRESENT? Yes Yes ES? Yes	N (es	D OBSERVATIONS PROF MATRIX COLOR MUNSELL MOIS 10YR 4/2 10YR 4/1 Gleyed WETLAN IS THIS SAMI IS THIS AN IS SIGNIFICANT	(flats) S CONFIRM I S CONFIRM I S CONFIRM I S T DEST	MAPPED TYP SCRIPTIC MG (MU  1  2  ERMINA TWITHIN A /ETLAND? You	ON OTTLE COLOR INSELL MOIST)  OYR 4/6 10%  I.5Y 5/6 25%  TION WEILAND? Yes	ENCOUNTERED	TEXTURE, CONCRETIONS, STRUCTURE, ETC.  Silt Loam Silt Loam		

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

	Form Quantitative Rating	Dotavio).	0 11-4	Date: 0/.ml.o
Site: WMA	ance	Rater(s):	R. Hook	Date: 9/18/09
ranx d pts. aubtotel	Metric 1. Wetiand Select one size class and assign >50 ecres (>20.2he) ( 25 to <50 acres (10.1 10 to <25 acres (4 to	n score. 6 pts) to <20.2hs) (5 pts)	· •	
9 10	3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 to 0.3 to <3 acres (0.04 0.1 to <0.3 acres (0.04 0.1 acres (0.04ha) (0.1 acres (0	<4ha) (3 pts) o <1.2ha) (2pts) I to <0.12ha) (1 pt) pts)	ارہ میں surrounding (an	d use.
max 14 pts. subtotal	2a. Celculate average buffer with WIDE. Buffers average MEDIUM. Buffers average NARROW. Buffers average NARROW. Buffers average NARROW. Buffers average VERY NARROW. Buffers NARROW. Buffers NARROW. 2nd grown LOW. Old field (>10 years) MODERATELY HIGH.	ith. Select only one at je 50m (164ft) or more trage 25m to <50m (82 terage 10m to <25m (82 ffers average <10m (< if use. Select one or o with or older forest, pra rears), shrubland, your Residential, fenced p	nd assign score. Do not double around wetland perimeter (7) to <1848) around wetland per 32ft to <82ft) around wetland p 32ft) around wetland perimeter	e check.  inneter (4) erimeter (1) (0)  2 (7) ge, new fallow field. (3)
15 25	Metric 3. Hydrolo	gy.		•
mex 30 piss. subtotat	3a. Sources of Water. Score al High pH groundwater (3)  Other groundwater (3)  Precipitation (1)  Seasonal/Intermittent  Perennial surface water  3c. Meedmum water depth. Sele  0.7 (27.8in) (3)  0.4 to 0.7m (15.7 to 2) <ul> <li>Q.4m (&lt;15.7in) (1)</li> </ul> 3e. Modifications to natural hydrogeness.	I that apply. (5) surface water (3) er (lake or stream) (5) ect only one and assig 7.6in) (2)	100 y Between Part of	c. Score all that apply. ear floodplain (1) sen stream/take and other human use (1) of wetland/upland (e.g. forest), complex (1) of riparian or upland corridor (1) undation/saturation. Score one or dbi che to permanently inundated/saturated (4) larly inundated/saturated (3) onally inundated in upper 30cm (12in) (1)
	None or none apparent Recovered (7) Recovering (3) Recent or no recovery	t (12) Check all distribution	irbances observed point fillings road i dredg	source (nonstormwater)  grading  bed/RR track  ing
9 34	Metric 4. Habitat	Alteration a	nd Development	<u> </u>
micz 20 pts. wubitotał	<b>.</b>	re one or double check it (4) (1) It only one and assign	cand average.	·
34	None or none apparent Recovered (6)  Recovering (3)  Recent or no recovery	ct (9) Check all distribution of the check all distributions of the check all distribution	rbances observed  shrub herba ng sedim cutting dredg	•

Site:	WMA	HNCE -		Rater(s)	RH	rok	Date: 9/18/09
	34 subtotal first po	ř					,
5	38	Metri	c 5. Special W	/etland	<b>S.</b>		
mack 10 pts.	L sylbeotesi		hat apply and score as inc	dicated.			
			Bog (10)				
	•		Fen (10) Old growth forest (10)				·
			Mature forested wetlend (5	5)			
			eke Erie coestel/tributary		stricted hyd	rology (10)	
			ake Erie coastal/tributery				
			_ake Plain Sand Prairies (	Oak Opening	s) (10)		
			Relict Wet Prairies (10)				
	-		Known occurrence state/le				
			Significant migratory songl Category 1 Wetland, See				
	<del></del>	1 ——'`	Jesegury I Prosesso, Coo	VOUCOSIGNI I V	COCHED TO 11	and (-10)	
3	42	Metri	c & Plant com	omuniti	ee int	erspersion, micro	topography
ment 20 pis		1	nd Vegetation Communitie		•	Community Cover Scale	topograpity.
High ex has	· shranan		resent using 0 to 3 scale.		C	Absent or comprises <0.1he (0	2471 acres) contiduous are
			Aquatic bed	•	1	Present and either comprises	
			Emergent		_	vegetation and is of moderat	-
			Shrub			significant part but is of low o	
		'الـــــا	Forest		2	Present and either comprises	-
		السسا	Mudflats			vegetation and is of moderat	e quality or comprises a sma
			Open water Other	•	3	part and is of high quality Present and comprises signific	ant next or more of wetten
			ntal (plan view) Interspers	ion.	•	vegetation and is of high qua	• •
		Select only					
			High (5)	!	Nametive De	scription of Venetation Quality	
			Moderately high(4)		low ·	Low spp diversity and/or predo	
			Moderate (3)			disturbance tolerant native s	
			Moderately low (2) Low (1)		mod	Native spp are dominant comp aithough nonnative and/or di	
			None (0)			can also be present, and spe	
			age of invasive plants. Re	efer		moderately high, but general	-
		to Table 1	ORAM long form for list.	Add		threatened or endangered sp	
_			points for coverage		high	A predominence of native spec	
			Extensive >75% cover (-5)	¢.		and/or disturbance tolerant n	
			Moderate 25-75% cover (- Sparse 5-25% cover (-1)	<i>a)</i>		absent, and high spp diversit the presence of rare, threats	
			Nearly absent <5% cover (	(O) (		ure proportion of taxes, or only	MAY OF GUIDA MOIOR OFF
			Absent (1)		Mudifiet and	Open Water Class Quality	
			opography.		0	Absent <0.1ha (0.247 acres)	
			resent using 0 to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47	<del></del>
			Vegetated hummucks/tuss	_	2	Moderate 1 to <4ha (2.47 to 9.	88 acres)
			Coarse woody debris >150 Standing deed >25cm (10)	, ,	3	High 4ha (9.88 acres) or more	·
			Standing dead >25cm (10) Amphibian breeding pools	•	Mireniana-	aphy Cover Scale	
		'لـــا	antenname of second Prints	}	0	Absent	
				•	1	Present very small amounts or	if more common

42

GRAND TOTAL (max 100 pts)

Rater to the most recent ORAM Score Calibration Report for the scoring threetpoints between welfand categories at the following address: http://www.epa.state.oh.ua/dsw/401/401.html
last revised 1 February 2001 jjm

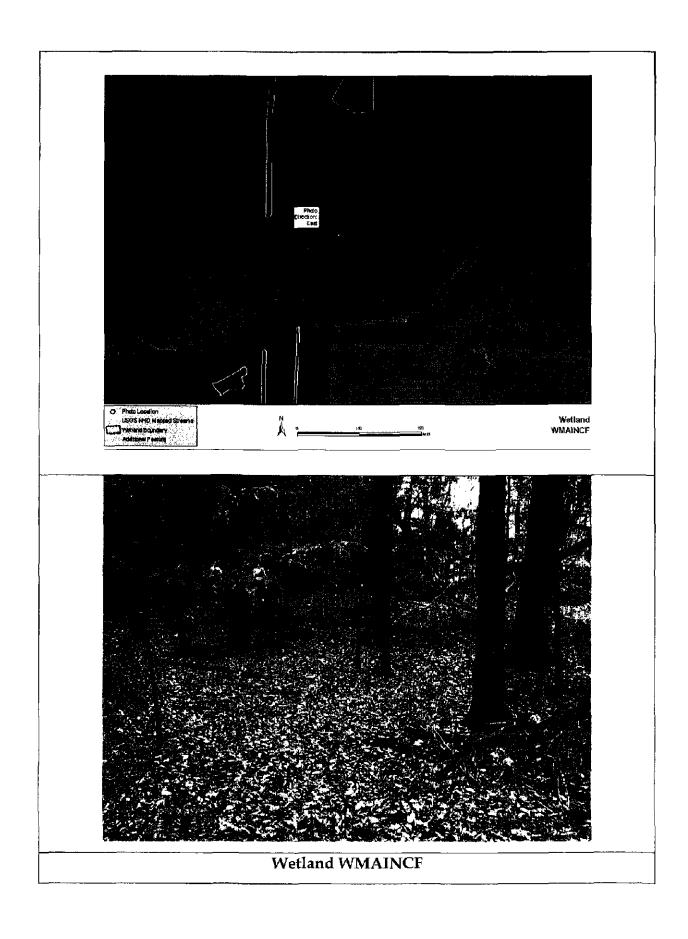
3

of marginal quality

and of highest quality

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts.





SURVEY TYPE: Blu	URVEY TYPE: Blue Creek Wind Farm					WETLAND ID NO.: WMAINCF ASSOCIATED STREAM ID NO: SMAINCD				
DATE: 09/21/2009		CLIEN	T/PROJECT NAME:	Heartland	d Wind LL	C./ Bl	ue Creek Wind I	Farm		
INVESTIGATORS: Hook		STATI	COUNTY: Obio/V	Van Wert		Rovi	er File: RAH0909	21.cor	QUAD NAME: Scott	
Huc12 Cope: 04100007	0702	Town	SHIP: Union			Рнот	ro No.:			
WEILAND QUALITY: Me	dium				LAND TYPE: Palustrine YPE: Forested					
	PLANT SPEC	CIES		S	TRATUM		INDICATOR		PERCENT COVER	
<ol> <li>Quercus palustris</li> </ol>				Tree			Fac Wet		20 %	
2. Fraxinus pennsylvan	ica				Tree		Fac Wet		70 %	
Ulmus rubra     Gleditsia triacanthos	<del></del> .	<u>-</u>			Tree	-+	Fac		10 % 10 %	
5.					erbaceous		Fac -			
6.						$\dashv$	·	<del></del>	<u> </u>	
<del></del>	EAC+ OB	FAC (DICLUS	usio E	C 100						
PERCENT OF DOMINANT	OFECIES THAT AI	G UBL, FACW,	, FACIVY, FACIV-,	FAC+, OK.	FAC (EXCLUL	JING FF	IC-): 100	·		
VEGETATION REMARKS:										
				Hydre	OLOGY					
RECORDED DATA?			DESCRIBE:							
DEPTH OF SURFACE WATER: N/A (in)				Di	EPTH TO SATE	JRATED	SOIL: >16 (in)			
DEPTH TO FREE WATER I	N PIT: Non	e (in)					_			
PRIMARY WETLAND IND	ICATORS:			SE	CONDARY W	RTLAND	INDICATORS:	<del></del>	<u> </u>	
Water Marks				Lo	cal Soil Surv	ey				
Drift Lines				FA	C Neutral T	est				
Remarks:										
				So	ILS	-			· · · · · · · · · · · · · · · · · · ·	
MAP UNIT NAME (SERIES	B AND PHASE): V	Vabasha silty c	ay	<del></del>	<del></del>			DRAINA	GE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP)	:	E	TELD OBSERVATION	vs Confirm	A MAPPED TY	PE. IP N	io, Soil Type Enc	OUNTERED	?	
			Pro	FILE DI	ESCRIPTI	ION				
DEPTH (INCHES)	Horizo	N	MATRIX COL (MUNSELL MC				E COLOR .L MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-6	A		10YR 3/1			10YR 4	/6 10%		Silt Loam	
8÷	В		10YR 4/1			10YR	4/65%		Silty Clay Loam	
				<u> </u>						
HYDRIC SOIL INDICATOR	s:				<b>_</b>					
Listed Hydi	ric		Gleyed				,			
Remarks:										
			WETLA	ND DE	TERMIN.	ATIO	N			
HYDROPHYTIC VEGETAT	ION PRESENT? Y	es es	"		INT WITHIN			· · · · · · · · · · · · · · · · · · ·		
WETLAND HYDROLOGY					WETLAND?					
HYDRIC SOILS PRESENT?		<del></del> -								
NORMAL CIRCUMSTANC			SIGNIFICAN	Tri v Dierri	RRED: No.		POTENT	AT PROBE	em Area? No	
		N OF WET	LAND CROS			ID W			<del></del>	
	AND: no indica	ntion of stress o	r disturbance in w	etland or ac	djacent area	- diver	se and mature veg	etation ty	pes - hydrologic and soil indicators	

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or Intermittent streams significantly disturbed.

SURVEY Type: Blue	Creek			WETLAND ID NO.: UMAINCF						
		<u> </u>				ID No: WM				
DATE: 09/18/2009		CLIENT/PROJECT NAME:	Heartlan	d Wind LL	C./ Blue Cre	ek Wind Far	m			
INVESTIGATORS: Hook		STATE/COUNTY: Ohio/	Van Wert		QUAD NAM	E: Scott				
HOC 12 CODE: 041000070	701	TOWNSHIP: Union			Рното No.:	:				
WETLAND QUALITY: N/A		·		D TYPE N/A : Upland	· · · · · · · · · · · · · · · · · · ·		<u> </u>			
	PLANT SPECIES		5	TRATUM	Ini	DICATOR	Percent Cover			
1, Acer saccharum				Tree	I	Fac Up	50 %			
2. Juglans nigra				Tree		ac Up	50 %			
Lonicera maackii     Toxicodentron radicar	19			Shrub lerbaceous		Jpland Fac	20 % 30 %			
5. Carex pennsylvanica	<u> </u>	<u> </u>		erbaceous lerbaceous	Į.	Juland	5 %			
6. Lysimacchia nummula	aria			erbaceous		ac Wet	20 %			
PERCENT OF DOMINANT S	PECIES THAT ARE OBL,	, FACW, FACW+, FACW-	, FAC+, OR	FAC (EXCLUE	ING FAC-): 4	0				
Vegetation Remarks:										
			Hydr	OLOGY						
RECORDED DATA?		DESCRIBE:								
DEPTH OF SURFACE WATE	D	EPTH TO SATL	RATED SOIL:	>16 (in)						
DEPTH TO FREE WATER IN	Pit: None (in)									
PRIMARY WETLAND INDI	CATORS:		Si	SECONDARY WETLAND INDICATORS:						
None										
Remarks:										
			Sc	DILS	·					
Map Unit Name (Series	AND PHASE): Hoytvill	le silty clay, 0 percent slop	es (flats)			Ī	RAINAGE CLASS: Very poorly drained			
TAXONOMY (SUBGROUP):		FIELD OBSERVATIO	NS CONFIRE	M MAPPED TY	PE. IF NO, SOI	L TYPE ENCOUR	VTERED?			
		Pro	FILE D	ESCRIPTI	ON					
DEPTH (INCHES)	Horizon	MATRIX COI (MUNSELL MO	- +		OTTLE COLO		Texture, Concretions, Structure, etc.			
0-8	Α	10yr 3/2			0		Silt Loam			
8+	В	10yr 4/2			10yr 4/4 30%		Silty clay Loam			
Hydric Soil Indicators	i: 			<del>T</del>			<u></u>			
Gleyed	<u>L</u>			<u></u>	<del></del>					
REMARKS: Typical for so	il type.									
		WETLA	ND DE	TERMIN.	ATION					
Hydrophytic Vegetati	ON PRESENT? No	Is This Sa	MPLING PO	INT WITHIN A	WETLAND?	Vo				
WETLAND HYDROLOGY P	RESENT? No	Is This An	N ISOLATED	WETLAND?	V/A					
Hydric Soils Present?	Yes									
	_	TURBED: NO POTENTIAL PROBLEM AREA? NO			D					
NORMAL CIRCUMSTANCE	9? Yes	SIGNIFICA	MILY DIST	RBED: No		POTENTIAL	PROBLEM AREA? NO			

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

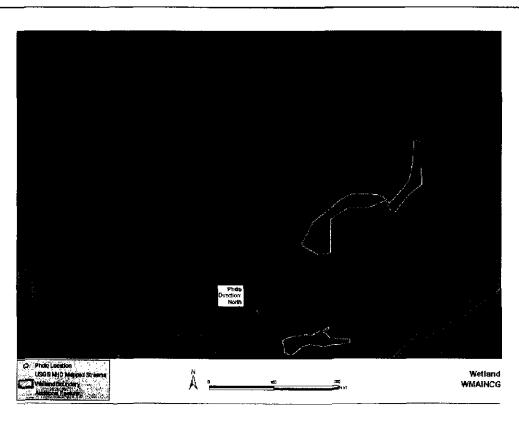
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field Fo	orm Quantitative Rating			
Site: WMA	MAICF	Rater(s):	MENVATAL	Date: 9/21/09
	Metric 1. Wetland Select one size class and assign (1.25 to <50 acres (10.1 to 10 to <25 acres (4 to <1.25 to <1.25 to <1.25 acres (4 to <1.25 to <1.25 acres (0.12 to <1.25 to <1.25 acres (0.12 to <	score. pts) > <20.2ha) (5 pts) (0.1ha) (4 pts) 4ha) (3 pts) <1.2ha) (2pts)	0 aere	
	<0.1 acres (0.04ha) (0 p			
9 10 max 14 pin. authorisi	WIDE. Buffers average MEDIUM. Buffers aver NARROW. Buffers aver VERY NARROW. Buffer 2b. Intensity of surrounding land of VERY LOW. 2nd grow LOW. Gld field (>10 ye MODERATELY HIGH.	buffers and surrouth. Salect only one and assign score 50m (164ft) or more around wetter age 25m to <50m (82 to <164ft) around wetter age 10m to <25m (32ft to <82ft) around wetter average <10m (<32ft) around wetter. Select one or double check at the or older forest, prairie, savenagh are), shrubland, young second grow Residentiel, fenced pasture, park, if, open pasture, row cropping, minit	re. Do not double check. Ind perimeter (7) Induction of perimeter (4) Induction of perimeter (4) Induction of perimeter (0) Induction of perimeter (0) Induction of perimeter (7) Induction of perimeter (7) Induction of perimeter (7) Induction of perimeter (8) Induction of perimeter (8) Induction of perimeter (9) Induc	)
19 29	Metric 3. Hydrolog			
mex 30 pts. autistoted	3a. Sources of Water. Score all in High pH groundwater (3)  Precipitation (1)  Seasonal/Intermittent surface water  3c. Madmum water depth. Select  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.  <0.4m (<15.7in) (1)	that apply.  i)  urface water (3)  (lake or stream) (5)  xt only one and assign score.  filn) (2)	Part of wetland/ Part of riperian of Sd. Duration inundation/se Semi- to permai Regularly inund Seasonally inund Seasonally satu	ain (1)  Viake and other human use (1)  Upland (e.g. forest), complex (1)  or upland corridor (1)  turation. Score one or dbt chechently inundated/saturated (4)
	Se. Modifications to natural hydro	logic regime. Score one or double	check and everage.	
	Recovered (7) Recovering (3) Recent or no recovery (	(12) Check all disturbances obserted ditch tile dike weir stormwater input	point source (no filling/grading road bed/RR tra dredging other	·
17 41	Metric 4 Habitat	Aiteration and Dev	elonment.	
mex 20 pts. eubtotal		o one or double check and average (4)	•	
	Fair (3) Poor to fair (2)		•	
	Poor (1) 4c. Habitat alteration. Score one	or d <u>ouble check and average.</u>		· · · · · · · · · · · · · · · · · · ·
46	None or none apparent Recovered (8) Recovering (3) Recent or no recovery (	mowing grazing	shrub/sapling re	satic bed removat

Site:	WMAINCE	Rater(s): Most	hew Nechvotal	Date: 9/2//09
	46 Authorited first page			
5	5   Metric 5. Spec	lai Wetlands.		
mux 10 pts.	subtonii Check all that apply and sec	re as indicated.		
	Bog (10)			
	Fen (10)   Old growth forest	(40)		
	Meture forested w	· •		
		fiributary wetland-unrestricted hy	rdrokovy (10)	
		fiributary wetland-restricted hydro		
	the state of the s	Prairies (Oak Openings) (10)		
	Relict Wet Prairie	• •		
		e state/federal threatened or end		•
		ory songbird/water fowl habitet o	_ · ·	
	Category I West	nd. See Question 1 Qualitative	reading (-10)	
5	6/0 Matria & Bland		taramenajan majan	-to
		•	terspersion, micr	otopograpny.
max 20 pts.			Community Coyer Scale	
	Score all present using 0 to	3 scale		(0.2471 acres) contiguous area
	Aquatic bed	1	Present and either comprises vegetation and is of modern	
	Shrub		significant part but is of low	
	7 Forest	2	Present and either comprises	
	(2) Mudflats	_	· ·	ate quality or comprises a small
	Open water		part and is of high quality	
	Other	3		icant part, or more, of wetland
	6b. horizontal (plan view) ir	iterspersion.	vegetation and is of high or	ıality
	Select only one. [13] High (5)	Namether I	Description of Vegetation Qual	iting.
	Moderately high(4		Low spp diversity and/or pred	lominance of nonnetive or
	Moderate (3)	,	disturbance tolerant native	
	Moderately low (2	) mod	Native spp are dominant con	
	Low (1)		although nonnative and/or o	disturbance tolerant native spp
	None (0)		can also be present, and sp	
	6c. Coverage of invasive pl		moderately high, but gener	
	to Table 1 ORAM long form or deduct points for covereg		A predominance of native sp	
	Extensive >75% of	•		native spp absent or virtually
	Moderate 25-75%			sity and often, but not always,
	Sperse 5-25% co		the presence of rare, threat	
	Nearly absent <5			
	Absent (1)		d Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	
	Score all present using 0 to Vegetated human		Low 0.1 to <1ha (0.247 to 2.4 Moderate 1 to <4ha (2.47 to	
	Coarse woody de		High 4he (9.88 ecres) or mor	
	Standing dead >2			<del></del>
	Amphibian breedi		graphy Cover Scale	
		0	Absent	
		1	Present very small amounts of	or if more common
			of marginal quality	
		<b>2</b>	Present in moderate amounts	_
		- 3	quality or in small amounts Present in moderate or great	
	7	3	and of highest quality	SE BUILDING
	T .		· ····································	

Refer to the most most GRAM Score Calibration Report for the scoring breakpoints between wetland categories at the following address: http://www.epe.etets.ch.us/daw/401/401.html
last revised 1 February 2001 jjm





Wetland WMAINCG



SURVEY TYPE: Blu	e Creek Wind I	Farm		<u> </u>		WMAIN			
						No: SMA			
DATE:		CLIENT/PROJECT NAMI	e: Heartlar	nd Wind LL	C./ Blue Cre	ek Wind Far	rm.		
INVESTIGATORS: R Hoo	k	STATE/COUNTY: Ohio	/Van Wert		Rover File	: 0	QUAI	NAME: Scott	
Huc 12 Code: 04100007	0702	Township: Union			Рното No.	:0		,	
WETLAND QUALITY: Me	dium			D Type: Palus Forested	itrine				
	PLANT SPECIES			STRATUM	IN	DICATOR	I	PERCENT COVER	
1. Fraxinus pennsylvan	ica			Tree		ac Wet		100 %	
2.	<del></del>							0 %	
3. 4.		<u> </u>						0% 0%	
5.				· · · · · · · · · · · · · · · · · ·				0 %	
6.					l			0%	
PERCENT OF DOMINANT	SPECIES THAT ARE OB	L, FACW, FACW+, FACW	/-, FAC+, OF	FAC (EXCLUI	OING FAC-): 1	00			
VEGETATION REMARKS:									
			HYDR	OLOGY			·		
RECORDED DATA?		Describe:							
DEPTH OF SURFACE WAT	rer: N/A (in)		D	EPTH TO SATU	PATED SOIL:	>16 (in)			
DEPTH TO FREE WATER	IN PIT: None (in)								
PRIMARY WETLAND IND	ICATORS:		s	ECONDARY W	ETLAND INDIC	ATORS:			
Water Marks	0		W	Vater-Stained	Leaves		FAC Neuti	ral Test	
	0		L	ocal Soil Surv	ey		0		
REMARKS: old railroad	i drainage swale								
			Sc	DIL5					
MAP UNIT NAME (SERIE	S AND PHASE): Wabas	ha silty clay					Drainage Cla	ss: Very poorly drained	
TAXONOMY (SUBGROUP)	):	FIELD OBSERVATION	ons Confir	m Mapped Ty	re. If No, So	L TYPE ENCOU	NTERED?		
		PR	OFILE D	ESCRIPT	ON				
DEPTH (INCHES)	Horizon	MATRIX CO			OTTLE COL			RE, CONCRETIONS, RUCTURE, ETC.	
0-12	A	10YR 4/1	1		10YR 4/6 309	6		Silt Loam	
Hydric Soil Indicator	RS:								
Listed Hyd	<b>r</b> ic	Gleyed		<u>                                     </u>					
Remarks:									
	<del></del>	WETL	AND DE	TERMIN.	ATION				
HYDROPHYTIC VEGETAT	TON PRESENT? Yes	Is This S	AMPLING PO	DINT WITHIN A	WETLAND?	Yes			
WETLAND HYDROLOGY	Present? Yes			WETLAND?					
HYDRIC SOILS PRESENT?	Yes								
NORMAL CIRCUMSTANC		Signific	ANTLY DIST	URBED: No		POTENTIAL	PROBLEM ARE	A? No	
		FWETLAND CRO			ID WETT.				
			<del></del>						
HIGH QUALITY WETI	AND: no indication o	of stress or disturbance in	wetland or a	adiacent area	- diverse and	mature vegeta	tion types - hy	drologic and soil indicators	

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



SURVEY TYPE: Blue	e Creek				WETLAND ID NO.: UMAINCG ASSOCIATED WETLAND ID NO: WMAINCG					
DATE: 09/18/2009					land Wind LLC./ Blue Creek Wind Farm					
INVESTIGATORS: Hook			STATE/COUNTY: Ohio/	Van Wert	QUAD NAME Scott					
Huc 12 Code: 041000070	0701		TOWNSHIP: Union		Рното No.:					
WETLAND QUALITY: N/A				WETLAND TYPE: N/A SUBTYPE: Upland						
	PLANT SPE	CIES		STRATUM	INDICATOR	PERCENT COVER				
1. Tilia americana				Tree	Fac Up	20 %				
2. Jugians nigra				Tree	Fac Up	20 %				
Carya ovata     Lonicera maackii				Tree Shrub	Upland	60 %				
5. Crataegus sp.	<del></del>	<u>-</u>		shrub	Fac Up	20 %				
6. Toxicodendron radica	ıns			Herbaceous	Fac	30 %				
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL, F	ACW, FACW+, FACW-	, FAC+, or FAC (exclu	DING FAC-): 15					
VEGETATION REMARKS:		•		· · · · · · · · · · · · · · · · · · ·						
-				HYDROLOGY						
RECORDED DATA?			Describe:							
DEPTH OF SURFACE WAT	er: N/A	4 (in)		DEPTH TO SAT	TURATED SOIL: >16 (in)					
DEPTH TO FREE WATER IS	N PIT: Nor	e (in)								
PRIMARY WETLAND INDI	ICATORS:			SECONDARY V	VETLAND INDICATORS:					
None										
REMARKS:		,								
				Soils						
Map Unit Name (Series		loytville		es (flats)		DRAINAGE CLASS: Very poorly drained				
		-loytville	FIELD OBSERVATIO	es (flats) NS CONFIRM MAPPED T	YPE. IF NO, SOIL TYPE ENC					
Map Unit Name (Series		loytville	FIELD OBSERVATIO	es (flats)						
Map Unit Name (Series			FIELD OBSERVATIO	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR						
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)	:		FIELD OBSERVATION PRO MATRIX COL	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON MOTTLE COLOR	OUNTERED?  TEXTURE, CONCRETIONS,				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP): DEPTH (INCHES)	: Horizo		PRO MATRIX COI (MUNSELL MO	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON MOTTLE COLOR	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-12	HORIZO		PRO MATRIX COI (MUNSELL MO	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON MOTTLE COLOR	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP):  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR	HORIZO		PRO MATRIX COI (MUNSELL MO	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON MOTTLE COLOR	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR  None	HORIZO A		PRO MATRIX COI (MUNSELL MO	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON MOTTLE COLOR	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP):  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR	HORIZO A		PRO MATRIX COI (MUNSELL MO	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON MOTTLE COLOR	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR None	HORIZO A		PRO MATRIX COL (MUNSELL MO  10yr 3/2	es (flats)  NS CONFIRM MAPPED TO  DETILE DESCRIPT  OR	TON  MOTTLE COLOR  MUNSELL MOIST)	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP)  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR  None	HORIZO A	DN	PRO MATRIX COI (MUNSELL MO  10yr 3/2	PES (flats)  NS CONFIRM MAPPED TO PHILE DESCRIPT  LOR DIST)  (1)	TON  MOTTLE COLOR  MUNSELL MOIST)	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP):  DEPTH (INCHES)  0-12  HYDRIC SOIL INDICATOR None REMARKS: Atypical for s	HORIZO  A  IS:  Soil type.	DN	PRO MATRIX COL (MUNSELL MO  10yr 3/2  WETLA IS THIS SA	NS CONFIRM MAPPED TO THE DESCRIPTION (A CONFIRM	TON  MOTTLE COLOR  MUNSELL MOIST)  VATION  AWETLAND? No	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP):  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR None REMARKS: Atypical for series HYDROPHYTIC VEGETATION	HORIZO  A  IS:  Soil type.  ION PRESENT? 1	DN	PRO MATRIX COL (MUNSELL MO  10yr 3/2  WETLA IS THIS SA	NS CONFIRM MAPPED TO THE DESCRIPT (A POINT) (A	TON  MOTTLE COLOR  MUNSELL MOIST)  VATION  AWETLAND? No	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP):  DEPTH (INCHES)  0-12  HYDRIC SUIL INDICATOR None REMARKS: Atypical for series HYDROPHYTIC VEGETATI WETLAND HYDROLOGY RESERVED.	HORIZO  A  IS:  Soil type.  ION PRESENT? 1  PRESENT? No  No	DN	PRO MATRIX COL (MUNSELL MO  10yr 3/2  WETLA IS THIS SA IS THIS AN	NS CONFIRM MAPPED TO THE DESCRIPT (A POINT) (A	MOTTLE COLOR MUNSELL MOIST)  NATION  AWETLAND? No	OUNTERED?  TEXTURE, CONCRETIONS,  STRUCTURE, ETC.				
MAP UNIT NAME (SERIES TAXONOMY (SUBGROUP):  DEPTH (INCHES)  0-12  HYDRIC SOIL INDICATOR None REMARKS: Atypical for series  HYDROPHYTIC VEGETATI WETLAND HYDROLOGY I HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANCE	HORIZO  A  SS:  Soil type.  ION PRESENT? 10  PRESENT? No  No ES? Yes	No.	PRO MATRIX COI (MUNSELL MO  10yr 3/2  WETLA IS THIS SA IS THIS AN	NS CONFIRM MAPPED TO PILLE DESCRIPT  OR  OR  OIST)  AND DETERMINATE OF THE PILLE OF	MOTTLE COLOR MUNSELL MOIST)  VATION  A WETLAND? No  N/A  POTENT	TEXTURE, CONCRETIONS, STRUCTURE, ETC. Silt Loam				

are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

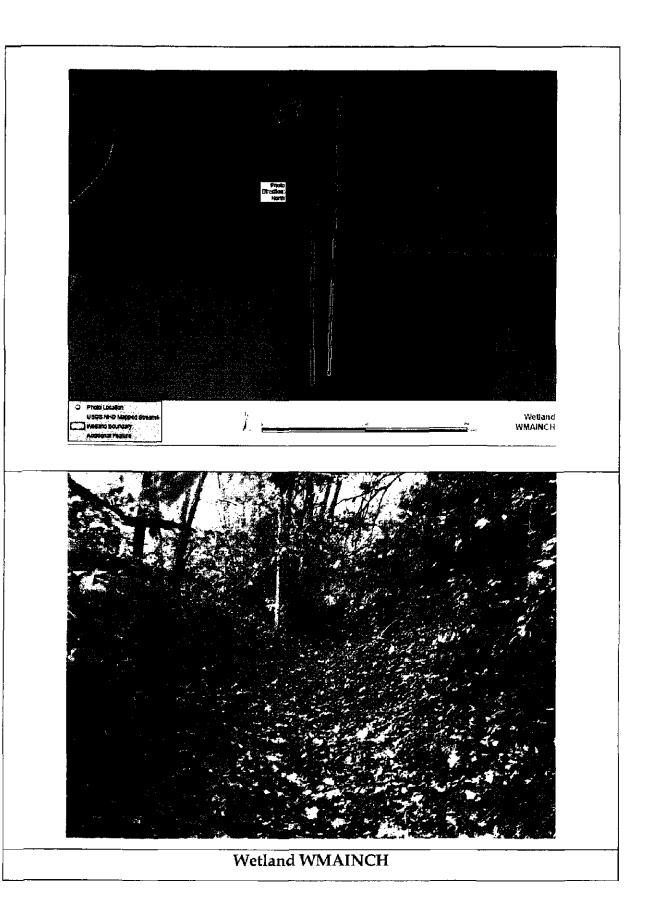
MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site:	1, 1	10C	Rater(s): Atment of	V Barrers	Date:
		Metric 1. Wetland	Area (size).		
гчажебр£ч,	subtolel	Select one size class and assign score  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20  10 to <25 acres (4 to <10.1h  3 to <10 acres (1.2 to <4ha)  0.3 to <3 acres (0.12 to <1.2  0.1 to <0.3 acres (0.04 to <0	.2ha) (5 pts) a) (4 pts) (3 pts) ha) (2pts)		
1	7	Metric 2. Upland	buffers and sur	rounding land ι	ıse.
max 74 pts.	subtobat	2a. Calculate average buffer width. S WIDE. Buffers average 50m MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers a 2b. Intensity of surrounding land use.	elect only one and assign score (164ft) or more around wetland 25m to <50m (82 to <164ft) arou 10m to <25m (32ft to <82ft) aro verage <10m (<32ft) around wet Select one or double check an older forest, preirie, savannah, v	Do not double check. I perimeter (7) Ind wetland perimeter (4) Sund wetland perimeter (1) Illand perimeter (0) Id average. Wildlife area, etc. (7)	
			idential, fenced pasture, park, co	nservation tillage, new fallow field	d. (3)
snox 30 pts.	2 <del>7</del>	Metric 3. Hydrolo 3a. Sources of Water. Score all that a High pH groundwater (5)		3b. Connectivity. Score all that 20 year floodplain (1)	
		Other groundwater (3)  Precipitation (1)  Seasonal/intermittent surface  Perennial surface water flak	` <del>-</del>		
		3c. Maximum water depth. Select on >0.7 (27.6in) (3)	ly one and assign score. (2)	Semi- to permanently Regularly inundated/s Seasonally inundated Seasonally saturated	inundated/saturated (4) aturated (3)
		None or none apperent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances obse ditch tile dike weir stormwater input	point source (nonstorr filling/grading road bed/RR track dredging other	nwater)
10	39	Metric 4. Habitat	Alteration and I	Develonment	The second secon
mesx 20 pts.	subtotal	4a. Substrate disturbance. Score one None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habital development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2)	or double check and average.	bevelopment.	·
		Poor (1) 4c. Habitat alteration. Score one or d			
	39 subtotal this pa	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Check all disturbances obse mowing grazing clearcutting selective cutting woody debris removal toxic pollutants	shrub/sapling removal herbaceous/aquatic bi sedimentation dradging farming nutrient enrichment	

Site: 🝌	$\mathcal{W}^{\dagger}_{E}$	Ra	iter(s): <sub>Maritals</sub>	Date:
	local three page	· ·		
		Metric 5. Special We	tlands.	
max 10 pls.	ledqi dare	Check all that apply and score as indicated.		
тивал (о <sup>.</sup> рга.	Sec spara	Bog (10) Fen (10) Old growth forest (10) Mature forested welland (5) Lake Erie coastal/tributary welland- Lake Erie coastal/tributary welland- Lake Plain Sand Prames (Oak Ope Relict Wet Praires (10) Known occurrence state/federal thr Significant migratory songbird/wete	restricted hydrology (5) inlings) (10) realened or endangered s ir fow! habitat or usage (1)	pecies (10) 0)
		Calegory 1 Wetland. See Question	1 Qualitative Raling (-10	<b>)</b>
2		Metric 6 Plant comp	nunitiee inte	erspersion, microtopography.
30.00			•	• • • •
лан 20 рів.	2 महीहेर्ग्स	6a. Welland Vegetation Communities.  Score all present using 0 to 3 scale.	Vegetation Communit	Absent or comprises < 0.1ha (0.2471 acres) configurus area
		Aquafic bed	1	Present and either comprises small part of welland's
		C Emergent	•	vegetation and is of mederate quality, or comprisos a
		Shrub		significant part but is of low quality
		Foresi	2	Present and either comprises significant part of wetland's
		→ Mudflats	<del>-</del>	vegetation and is of moderate quality or comprises a small
		( ) Open water		part and is of high quality
		Other	3	Present and comprises significant part, or more, of wetland's
		6b. horizontal (plan view) Interspersion.	Ť	vegetation and is of high quality
		Select only one.		Togget and the second second
		High (5)	Narrative Description	of Vegetation Quality
		Moderately high(4)	low	Low spp diversity and/or predominance of nonnative or
		Moderate (3)		disturbance tolerant native species
		Moderately low (2)	mod	Native spp are dominant component of the vegetation,
		Low (1)		although normalive and/or disturbance tolerant native spp
		None (0)		can also be present, and species diversity moderate to
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o presence of rare
		to Table 1 ORAM long form for list. Add		threatened or endangered spp
		or deduct points for coverage	high	A predominance of native species, with normative spp
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp absent or virtually
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often, but not always,
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or endangered app
		Nearly absent <5% cover (0)	· · · · · · · · · · · · · · · · ·	
		Absent (1)	MudSat and Open War	
		6d Microtopography.	0	Absent <0 tha (0.247 acres)
		Score all present using 0 to 3 scale.  Vegeteted hummucks/tussucks		Low 0.1 to <1hs (0.247 to 2.47 acres)  Moderate 1 to <4hs (2.47 to 9.88 acres)
		Coarse woody debris >15cm (6in)	. 3	High 4ha (9 88 acres) or more
		U Standing dead >25cm (10in) dbh		High and fa od brace) of mose
		Amphibien breeding pools	Microtopography Cov	er Scale
		F / Lembuston, meening bross	0	Absent
			1	Present very small amounts or it more common
			•	of marginal quality
			2	Present in moderate amounts, but not of highest
			4	quality or in small amounts of highest quality
			3	Present in moderate or greater amounts
			-	and of highest quality

Refer to the most recent QRAM Score Cellipration Report for the scoring breakpoints between welland cazegories at the following address: http://www.epa.state.oh.us/dsu/40 t/401.html





										<del></del>		
SURVEY TYPE: Blu	e Creek W	nd F	arm			WETLAND ID NO.: WMAINCH					4	
	·					ASSOCIAT	ED STREAM	M ID No: SMA	<u>INC</u>	D	V	
DATE:			CLIENT/PR	OJECT NAME: H	Teartland	Wind LL	C./ Blue	Creek Wind Fa	um_			
INVESTIGATORS: R Hool	k		STATE/CO	JNTY: Ohio/Va	ın Wert	ROVER FILE: 0				QUAD NAME: Scott		
HUC12 CODE: 04100007	0702		TOWNSHIP	: Union			Рното	No.: 0				
WEILAND QUALITY: Me	dium				WETLAND Subtype: ]	Type: Palus forested	trine					
	PLANT SPE	CIES			Si	RATUM	INDICATOR			Percent Cover		
1. Fraxinus pennsylvan	ica					Tree		Fac Wet	<del>                                     </del>	40 %		
2. Quercus bicolor						Tree		Obligate		10 %		
<ol><li>Quercus palustris</li></ol>						Tree		Fac Wet		10 %		
4. Fraxinus pennsylvan	ica					Shrub		Fac Wet		30 %		
5								·	<u> </u>	0%		
6									Щ_	0%		
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL	FACW, FAC	W+. FACW F	AC+. or I	AC (exclui	ING FAC	-): 100				
VEGETATION REMARKS:				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			<u></u>	····			
		,			HYDRO	MOGY						
Recorded Data?		·····	Ti	DESCRIBE:	IIIDK	LOGI						
DEPTH OF SURFACE WATER: N/A (in)					DE	PTH TO SATI	IRATED SO	DIL: >16 (in)				
DEPTH TO FREE WATER IN PIT: None (in)												
PRIMARY WETLAND IND		<del>_``</del>			Sec	Secondary Wetland Indicators:						
		0	<del>-</del>		<u> </u>					AC Neutral Test		
Water Marks					<del>- 1</del>	ter-Stained	_		-			
		0			Loc	al Soil Surv	ey		0			
REMARKS: old railroad	l drainage swal	e 										
					So	ILS						
MAP UNIT NAME (SERIE	5 AND PHASE): \	<b>√abas</b> h	a silty clay		_				DRAD	NAGE CLASS: Very poorly drained		
TAXONOMY (SUBGROUP)	:		Field	OBSERVATIONS	S CONFIRM	MAPPED TY	PE. IF NO,	SOIL TYPE ENCO	UNTERI	KD?		
				Prof	TLE DE	SCRIPT	ION					
DEPTH (INCHES)	Horizo	)N	-	AATRIX COLO IUNSELL MOI			OTTLE C			TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-8	A			10YR 4/1			10YR 4/6	20%		Silt Loam		
8+	В			10YR 5/1			10YR 4/6	20%		Sandy Clay Loam		
0	0			0		i	0			0		
Hydric Soil Indicator	RS:					<b></b>						
Listed Hyd	ric		(	Gleyed			0	<u></u>		0		
Remarks:												
				WETLAN	un Dei	TERMIN	ATION					
15.000.000				,	1,471							
HYDROPHYTIC VEGETAT WEILAND HYDROLOGY		y es		Is This Sam Is This An I				or Yes				
Hydric Soils Present?				- williami	WWW ED 1	- CILCUITO	. 10					
NORMAL CIRCUMSTANC				SIGNIFICANT	TLY DISTU	RBED: No		POTENTIA	ı. Pro	BLEM AREA? No		
		N OI	WETLA				ID WE			Y CRITERIA		
are characteristic of the s										types - hydrologic and soil indicato observed.		

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

CH2MHILL

# ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue	e Creek				WETLAND ID NO.: UMAINCH ASSOCIATED WETLAND ID NO: WMAINCH					
DATE: 09/18/2009		CLIENT/PROJEC	T NAME: He	eartland	d Wind LLC./ Blue Creek Wind Farm					
Investigators: Hook		STATE/COUNTY	r: Ohio/Van	n Wert		Quad Nami	E: Scott			
HUC 12 CODE: 041000070	0701	TOWNSHIP: U	nion		PHOTO No.:					
WETLAND QUALITY: N/A	\	<del></del>			TYPE: N/A					
	<del></del>		s	SUBTYPE: U	Jpland					
	PLANT SPECIES			ST	RATUM		DICATOR	PERCENT COVER		
Quercus rubra     Xanthoxylum america			——		Tree		ac Up Ipland	40 % 10 %		
3. Prunus serotina	attunt				Shrub Shrub		ac Up	10 %		
4. Lonicera maackii					Shrub		Jpland	10 %		
5. Toxicodendron radica	ans			Her	rbaceous		Fac	20 %		
6.								%		
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 20										
VBGETATION REMARKS:										
HYDROLOGY										
RECORDED DATA?		Dasc	RIBE:							
DEPTH OF SURFACE WAT	er: N/A (in)			Der	тн то 5атг	RATED SOIL:	>16 (in)			
DEPTH TO FREE WATER I	N Pit: None (in)									
PRIMARY WETLAND IND	ICATORS:			Sec	ONDARY W	ETLAND INDIC	ATORS:			
None										
Remarks:										
				Cor	T.C.					
MAP UNIT NAME (SERIES	AND PHASE): Hoptor	ille cilty clay () per	rent slopes (	SOI	<u> </u>		1	Drainage Class: Very poorly drained		
TAXONOMY (SUBGROUP)				· · · · · · · · · · · · · · · · · · ·	M A ODED TV	PE IFNO, SON	<del></del>			
TAXONOMI (SUBGROOL)	<u> </u>	TIELD OBS			SCRIPT		LITELACOU	N I ENED!		
		<del></del>	r ROFI	LE LA	2CKIL ()	UN				
DEPTH (INCHES)	Horizon		RIX COLOR SELL MOIST	-		IOTTLE COLO UNSELL MOI		TEXTURE, CONCRETIONS, STRUCTURE, ETC.		
0-10	A	1	Oyr 3/2			0		Silt Loam		
10+	В	1	Oyr 4/2			10yr 4/6 10%		Silty clay Loam		
HYDRIC SOIL INDICATOR	.s:									
Gleyed										
REMARKS: Typical for se	oil type.									
		V	VETLAN	D DEI	ERMIN	ATION		······································		
HYDROPHYTIC VEGETAT	ION PRESENT? No	Ţ.	THIS SAMPI	LING POIN	IT WITHIN I	WETLAND?	Чо			
WETLAND HYDROLOGY	PRESENT? No		THIS AN ISC							
HYDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANC		s	IGNIFICANTL	LY DISTUR	BED: No		POTENTIAL	PROBLEM AREA? No		
						D WETL	AND OU	ALITY CRITERIA		

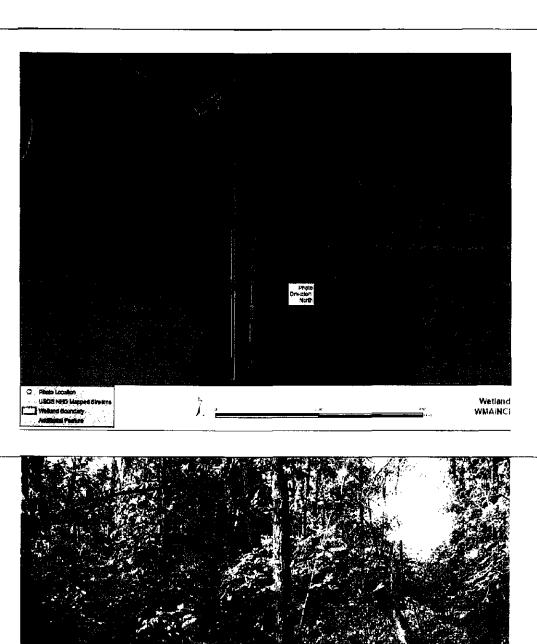
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed. MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

Site:	WMAINCH	Rater(s):	RHOOL	Date: 9/z	1/09
music 6 pts.	Metric 1. Wetland  Select one size class and assign  >50 acres (>20.2ha) {  25 to <50 acres (10.1)  10 to <25 acres (4 to <	n score. 6 pts) to <20.2ha) (5 pts) <10.1ha) (4 pts)	).		
	3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 to 0.1 to <0.3 acres (0.0 	to <1.2ha) (2pts) 4 to <0.12ha) (1 pt)	0,2 au	e e	
8	9 Metric 2. Upland			•	
max 14 pts.	2a. Calculate average buffer with WIDE. Buffers average buffer with WIDE. Buffers average buffer with WIDE. Buffers average bu	ge 50m (164t) or mon erage 25m to <50m (8: verage 10m to <25m : iffers average <10m (< due to select one or with or older forest, pro- years), shrubland, you . Residential, fenced	e around wetland peri 2 to <164ft) around w (32ft to <82ft) around <32ft) around wetland double check and aven wirle, savannah, wildlift ing second growth for pasture, park, conser	meter (7) etland perimeter (4) wettand perimeter (1) perimeter (0) erage. fe area, etc. (7) est. (5) vation tillage, new fallow field. (3)	
16	25 Metric 3. Hydrold	ogy.			
mast 30 plm.	38. Sources of Water. Score at High pH groundwater Other groundwater (3) Precipitation (1) Seasons/Intermittent Perennial surface wat 3c. Maximum water depth. Sel- >0.7 (27.6in.) (3) 0.4 to 0.7m (15.7 to 2	(5) } surface water (3) er (lake or stream) (5) act only one and assig 7.6in) (2)	3d. 0	connectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other hur Part of wetland/upland (e.g. forest) Part of metland or upland comdor ( uration inundation/saturation. Score on Semi- to permanently inundated/sa Regularly inundated/saturated (3)  Seasonally inundated (2) Seasonally saturated in upper 30cr	, complex (1) 1) e or dbl che turated (
	3e. Modifications to natural hyd None or none apperer Recovered (7) Recovering (3) Recent or no recovery	nt (12) Check all dist ditch tile	urbanoss observed	point source (nonstormwater) filling/grading road bed/RR track dredging other	
9 (Max 20) phs.	Metric 4. Habitat  substrate disturbence. Sco None or none appeare Recovered (3) Recovering (2) Recent or no recovery  4b. Habitat development. Select Excellent (7) Vary good (8) Good (5) Moderately good (4) Fair (3) Poor (1)  4c. Habitat alteration. Score or	Alteration and assign	and Develor ik and average. i score.		1
	None or none apparer Recovered (6) Recovering (3) Recent or no recovery	(1) mowing grazing clearcutive selective	ting cutting obts removal	shrub/sapling removal herbecaous/aquetic bed removal sedimentation dredging farming nutrient enrichment	•

Site:	WM	AINCH	Rater(s):	R	Hook	Date: 9/21/59
, au	34 blotal first pa	<b>p</b>	•		·	
5	39	Metric 5. Spe	ecial Wetlands.			
mex 10 pta.	aubiotai	Check all that apply and :				·
		Bog (10)				
		Fen (10)	-4 (46)		•	
		Old growth fore	* -			
			tel/tributery wetland-unrestri	cted by	dralogy (10)	
			tal/tributary wetland-restricte	•		
			d Prairies (Oak Openings) (*		<b></b> , ,	
		Relict Wet Prai			•	
			nce state/federal threatened		• • • •	
			ratory songbird/water fowl he		- · ·	
		Category 1 We	tiand. See Question 1 Qual	itative i	Kating (-10)	
ュ	42	Market C. Dis.	4		·	4
	70				terspersion, mic	rotopograpny.
mex 20 pts.	eubtobel	6a. Wetland Vegetation		station	Community Cover Scale	
		Score all present using 0	to 3 scale.	0		e (0.2471 acres) contiguous an
		Aquatic bed Emergent		1	Present and either compris	ies smail part of wetland's erate quality, or comprises a
		Shrub			significant part but is of k	- •
		Forest		2		es significant part of wetland's
		Mudifiats		-		erate quality or comprises a sm
		Open water			part and is of high quality	
		Other		3	Present and comprises sig	nificant part, or more, of wetten
		6b. horizontal (plan view	) Interspersion.		vegetation and is of high	quality
		Select only one.	4.9			-
		High (5)  Moderately high			Pescription of Vegetation Qu	edominance of nonnetive or
		Moderate (3)	(4)	iow	disturbance tolerant nativ	
		Moderately low	(2)	mod		omponent of the vegetation,
		Low (1)			• • •	or disturbance tolerant native so
		None (0)			cen also be present, and	species diversity moderate to
		6c. Coverage of investve	•			erally w/o presence of rare
		to Table 1 ORAM long for	<del>-,,</del>		threatened or endangere	
		or deduct points for cover	~	high		species, with nonnetive spp
		Extensive >759 Moderate 25-79	• •		•	nt native app absent or virtually ersity and often, but not always,
		Sparse 5-25%			•	stened, or endangered spp
		Mearly absent	· · ·		411	
		Absent (1)	Mud	itet an	d Open Water Class Quality	
		6d. Microtopography.		0	Absent <0.1ha (0.247 agre	98)
		Score all present using 0		1	Low 0.1 to <1ha (0.247 to 2	
			mucks/tussucks	2	Moderate 1 to <4hs (2.47)	
			debris >15cm (6in)	3	High 4ha (9.88 acres) or m	O.O.
		Amphibian bree	>25cm (10in) dbh eding pools Miles	nina.	graphy Cover Scale	
			ound been	0	Absent	
				1	Present very small amount	s or if more common
			-		of marginal quality	
			<del></del>	2	Present in moderate amou	
					quality or in small amoun	
				3	Present in moderate or gre	ater amounts





Wetland WMAINCI



SURVEY TYPE: Blue Creek Wind I	WETLAND ID NO.: WMAINCI						
		ASSOCIATED STREAM ID NO: SMAINCD					
DATE: CLIENT/PROJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm							
Investigators: R Hook	STATE/COUNTY: Ohio/	FATE/COUNTY: Ohio/Van Wert		ROVER FILE: 0		QUAD NAME: Scott	
Huc 12 Cops: 041000070702	TOWNSHIP: Union			Рното <b>No.</b> : 0			
Wetland Quality: Medium			AND TYPE: Palustrine  TE: Forested				
PLANT SPECIES	<del></del>	Sī	STRATUM INDICATOR			PERCENT COVER	
1. Fraxinus pennsylvanica		Tree Fac Wet				100 %	
2. 3.						0 % 0 %	
4.		<del>                                     </del>			+	0 %	
5.					0 %		
6.						0 %	
PERCENT OF DOMINANT SPECIES THAT ARE OBI	, FACW, FACW+, FACW-	, FAC+, OR I	FAC (EXCLUE	ING FAC-): 100			
Vegetation Remarks:							
		HYDRO	OLOGY				
Recorded Data?	Describe:						
DEPTH OF SURFACE WATER: N/A (in)		De	етн то батц	RATED SOIL: >16 (in)		<del>_</del>	
DEPTH TO FREE WATER IN PIT: None (in)				_			
PRIMARY WETLAND INDICATORS:		SECONDARY WETLAND INDICATORS:					
Water Marks 0		Water-Stained Lea		eaves		FAC Neutral Test	
0		Lo	Local Soil Survey 0				
REMARKS: old railroad drainage swale							
		So	ILS				
Map Unit Name (Series and Phase): Hoytvi	ile clay, 0 percent slopes (fl	la <b>ts</b> )			DRAIN	AGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP):	FIELD OBSERVATIO	NS CONFIRM	4 MAPPED TY	PE. IF NO, SOIL TYPE ENCO	UNTERE	D?	
	PRO	FILE DE	SCRIPTI	ON			
DEPTH (INCHES) HORIZON		MATRIX COLOR (MUNSELL MOIST)		MOTTLE COLOR (MUNSELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-8 A	10YR 4/1	10YR 4/1		10YR 4/6 20%		Silt Loam	
8+ B	10YR 5/1			10YR 4/6 20%		Sandy Clay Loam	
0 0	0	0		0		0_	
Hydric Soil Indicators:							
Listed Hydric	Gleyed	leyed		0		0	
REMARKS:							
	WETLA	AND DE	TERMINA	ATION			
Hyprophytic Vegetation Present? Yes							
WEILAND HYDROLOGY PRESENT? Yes IS THIS AN ISOLATED WETLAND? No							
Hydric Soils Present? Yes							
NORMAL CIRCUMSTANCES? Yes · SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No						LEM AREA? No	
DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITERIA							
						pes - hydrologic and soil indicators	

are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

DATE 09/18/2009  CLIENT/PROJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm  INVESTIGATORS: Hook  STATE/COUNTY: Ohio/Van West  QUAD NAME: Scott  HUC 12 CODE: 041000070701  TOWNSHIP: Union  PHOTO NO.:  WETLAND QUALITY: N/A  SUBTYPE: Upland  PLANT SPECIES  STRATUM  INDICATOR  PERCENT COVER  1. Quercus palustris  Tree Fac Up 10 % 20 % 20 % 3. Frunus serotina Shrub Fac Up 10 % 4. Lonicera maackii Shrub Herbaccous Fac 20 % 5. Toxicedendron radicane Herbaccous Fac 20 %  PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW-, FACW-, FACY-, or FAC (EXCLUDING FAC): 20  VEGETATION REMARKS:  HYDROLOGY  RECORDED DATA? DESCRIBE  DEPTH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL: >16 (in)  PRIMARY WETLAND INDICATORS: None  REMARKS:  SOILS  MAP UNIT NAME (SERIES AND PHASS): Hoytville silty clay, 0 percent slopes (flats)  DRAINAGE CLASS Very poorly drained	SURVEY TYPE: Blue	Creek			WETLAND ID NO.: UMAINCI ASSOCIATED WETLAND ID NO: WMAINCI			
STATE COUNTY ORDER OF THE COUNTY ORDER ORDER OF THE COUNTY ORDER ORDER OF THE COUNTY ORDER ORD	T) on /28 /2000	Cr. ram/III	DOINGT NAMES USS					
HUCUZ CODE: 0410007070701 TOWNSHIF: Union PROTONOS:  WETLAND QUALITY: N/A SURVIVE (pland  PLANT SPECIES STRATUM INDICATOR PERCENT COVER  1. QUESSE poliularia  PLANT SPECIES STRATUM INDICATOR PERCENT COVER  1. QUESSE poliularia  Tree Fac Up 10 5.  2. Cary covera Tree Fac Up 20 5.  3. Trunts servicia  Strain Fac Up 10 5.  4. Concesse poliularia  Strain Fac Up 10 5.  Strain Fac Up 10 5.  Percent of Dominant Species that arx OBL, FACW, FACW, FACW, FACW, FAC (excusions FAC): 20  VEGETATION REMARKS:  HYDROLOGY  RECORDED DATA?  DESCRIBE  DEPTH OF SUBJACK WATES: N/A (in) DEPTH TO SATURATED BOIL: 216 (in) DEPTH TO FARE WATES IN THE None (in)  DEPTH TO FARE WATES IN THE None (in)  PRIMARY WETLAND INDICATORS.  None  REMARKS:  SCONDARY WETLAND INDICATORS.  NONE  REMARKS:  SOILS  AMARUX CURT NAME (SERIES AND PLASSE): Horyville stry clay, 0 percent alopse (fles) DEALWAGE CLASS Very pourly distinct  TAXONOMY (SUUGROUP): FULL DESCRIPTION  MATERIX CULOR  (MUNISLI, MOIST)  MATERIX CULOR  (MUNISLI, MOIST)  STRUCTURE, STR.  STRUCTURE DESCRIPTION  STRUC				1P III				
WETLAND QUALITY: N/A  SURFORM UPTLAND TYPE: N/A SURFORM UPTLAND TYPE: N/A SURFORM UPTLAND TYPE: N/A SURFORM UPTLAND TYPE: N/A SURFORM UPTLAND TYPE: N/A SURFORM UPTLAND TYPE: N/A SURFORM UPTLAND UPTLAND The SR: Up 10 % Tree Fix: Up 20 % SPECUP 10	INVESTIGATORS: Hook	STATE/CO	OUNTY: Ohio/Van V	Vert	QUAD NAME: Scott			
PLANT SPECIES  PLANT SPECIES  STRATUM INDICATOR PERCENT COVER  1. Quersus palaubtis Tree Fac Up 10 % 10 % 1. Concessory palaubtis Tree Fac Up 20 % 3. Frings serotina Strub Fac Up 10 % 1. Concessory Fac Up 10 % 10 % 10 % 10 % 10 % 10 % 10 % 10 %	Huc 12 Code: 0410000707	701	Townshi	r: Union		Рното No.:		
I. Cuersus palastris  E. Carry ordin  Tree  Eac Up  10 %  E. Carry ordin  Tree  Pac Up  20 %  Frumer serious  Strub  Strub  Pac Up  10 %  E. Consequent of the Up  10 %  E. Consequent of								
2. Carya gorda Strub Free Fac Up 10 % Strub Strub Fac Up 10 % Fac Up 10	<u> </u>	PLANT SPEC	TIES		STRATUM	INDICATOR	PERCENT COVER	
SPINIDS SERVICES   STAND   Fact Up   10 %	1. Quercus palustris				Tree	Fac Up		
## SPINE STORES TRANSFER	2. Carya ovata							
FECCENT OF DOMINANT SPECIES TRAT ARE OBL, FACTY, FACTY, FACTY, or FAC (EXCLUDING FACT: 20  VEGETATION REMARKS:  HYDROLOGY  RECORDED DATA?  DEFTH OF SURFACE WATER: N/A (in) DEFTH TO SATURATED SOIL: >16 (in)  DEFTH OF SURFACE WATER: N/A (in) DEFTH TO SATURATED SOIL: >16 (in)  DEFTH OF REW WATER IN PTI: None (in)  PRIMARY WETLAND INDICATORS: NONE  MAP UNIT NAME (SERIES AND PLASE): Høytville slity clay, 0 percent slopes (flats)  PREMARKS:  SOILS  MAP UNIT NAME (SERIES AND PLASE): Høytville slity clay, 0 percent slopes (flats)  PREMARKS:  PROFILE DESCRIPTION  DEFTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST)  GIUNNESLL MOIST)  GIUNNESLL MOIST)  STRUCTURE, ETC.  4-10 A 107/3/2 0 Silt Loam  10+ B 107/4/2 107/4/6 10% Silty clay Loam  HYDRIC SOIL NODACATORS:  GREYER  REMARKS: THIS SAMFLING POINT WITHIN A WETLAND? NO  WETLAND DETERMINATION  HYDROLOGY  HYDRIC SOIL SYDE.  WETLAND DETERMINATION  HYDROLOGY  HYDRIC SOIL SYDE.  WETLAND DETERMINATION  HYDROLOGY  HYDRIC SOIL SYDE.  WETLAND DETERMINATION  HYDROLOGY  HYDROLOGY  FORDWILL PROBLEM AREA? NO  NORMAL CIRCUMSTANCES? Yes  SKONBREANTLY DESTURBED: NO POENTIAL PROBLEM AREA? NO				<del></del> _				
S. PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, FACW, FACW, FACW, FACW, FAC (ENCLUDING FAC.): 20 VEGETATION REMARKS:  HYDROLOGY  RECORDED DATA?  DESCRIBE  DEPTH OF SUFFACE WATER: N/A (in)  DEPTH OF SUFFACE WATER: N/A (in)  DEPTH OF SUFFACE WATER: N/A (in)  DEPTH OF SUFFACE WATER IN PT: None (in)  PRIMARY WETLAND INDICATORS:  None  REMARKS:  SOILS  MAPUNIT NAME (SERIES AND PHASS): Horyville skity clay, 0 percent slopes (flass)  TAXONOMY (SUBGROUP):  FIELD OSSERVATIONS CONFERN MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  **  **  **  **  **  **  **  **  **				<del></del>				
PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, EACW, EACW, OR FAC (EXCLUDING FAC): 20  VEGETATION REMARKS:  HYDROLOGY  RECORDS DATA?  DESCRIBE  DEFIN TO SATURATED SOIL: >16 (in)  DEFIN TO SREEWATER: N/A (in)  DEFIN TO SREEWATER: N/A (in)  DEFIN TO SATURATED SOIL: >16 (in)  DEFINATE WETLAND INDICATORS:  NORE  MAP UNIT NAME (SERIES AND PHASE): HoyIVIII silty clay, 0 percent slopes (flats)  TAXONOMY (SURGROUP):  FERLO DOSSEWATIONS CONTREM MAPPED TYPE IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEFIN (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  GIVEN  10+  B  1077 4/2  1071 4/6 10%  Silt Loam  HYDROC SOIL NIDICATORS:  Gleyed  WETLAND DETERMINATION  HYDROFILE VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND INFORMATIC VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND INFORMATIC VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND INFORMATIC VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND INFORMATIC PRESENT? YES  NORMAL CIRCLMSTANCES? YES  SIGNIFICANTIX DISTURBED: NO  POTENTIAL PROBLEM ARRA? NO		116		<u>-</u>	Herizaceous	1785		
HYDROLOGY  RECORDED DATA?  DEFTH OF SURFACE WATEE: N/A (in)  DEFTH OF SURFACE WATEE IN PIT: NORING (in)  SECONDARY WETLAND INDICATORS:  SOILS  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytwille stity clay, 0 pexcent slopes (flats)  DEFTH (INCHES)  HORIZON  MAPPED TYPE IF NO, SOIL TYPE INCOUNTERED?  PROFILE DESCRIPTION  DEFTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  (MUNSELL MOIST)  SIR Leam  104  B 10yr 3/2 0 Silk Leam  104  B 10yr 4/2 10yr 4/6 10%  Silky clay Loam  HYDRIC SOIL INDICATORS:  SIRY CARRY  SIRY CARRY  SIRY CARRY  WETLAND DETERMINATION  HYDRON SURFACENTY NO  IS THIS SAMPLING ROET WITHIN A WETLAND? NO  WETLAND DETERMINATION  HYDRIC SOILS PRESENT? NO  IS THIS AN ISOLATED WETLAND? N/A  HYDRIC SOILS PRESENT? YES  NORMAL CIRCLMSTANCES? YES  SIGNINGANTLY DESTURED: NO  POTENTIAL PROBLEM AREA? NO			-ODI ELEMEN	CINE EACIN EAC	N on FAG/man-	marker), 20	<u> </u>	
HYDROLOGY  RECORDED DATA?  DESCRIBE  DEFTH OF SUREACE WATER: N/A (in) DEFTH TO SATURATED SOIL: >16 (in)  DEFTH OF FREE WATER IN PIT: None (in)  PRIMARY WETLAND INDICATORS:  None  SOILS  MAP UNIT NAME (SERIES AND PHASS): Hopiville sitry clay, 0 percent slopes (flats)  DEFTH (INCHES)  PROFILE DESCRIPTION  DEFTH (INCHES)  HORIZON  (MUNSELL MOIST)  HORIZON  HOPIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROHULE VEGETATION PRESENT? No  IS DUS SAMPLING FORTH WITHIN A WETLAND? NO  BY THE SAMPLING POINT WITHIN A WETLAND? NO  BY THE SAMPLING POINT WITHIN A WETLAND? NO  BY THE STUDE PROBENT? YOS  HYDRICATORS PRESENT? YOS  SIGNERCANTLY DESTURED. NO  POTENTIAL PROBLEM AREA? NO  NORMAL CURCUMSTANCES? YES  SIGNERCANTLY DESTURED. NO  POTENTIAL PROBLEM AREA? NO		PECIES THAT AS	EOBL, FACW, FA	CW+, PACW-, PAC	.+, OR FAC (EXCLUE	ing PAC-j; 20		
RECORDED DATA?  DESCRIBE  DEPTH OF SURFACE WATER: N/A (in)  DEPTH OF SURFACE WATER: SECONDARY WETLAND INDICATORS:  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville sitry clay, 0 percent slopes (flats)  DRAINAGE CLASS Very poorly drained  TAXONOMY (SURGROUP):  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  O-10  A 10yr 3/2  0 Silt Loam  10+  B 10yr 4/2  10yr 4/6 10%  Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDRORITIC VEGETATION PRESENT? NO  IS THIS SAMFLING FORT WITHIN A WETLAND? NO  HYDRORITIC VEGETATION PRESENT? NO  IS THIS AM ISOLATED WETLAND? N/A  HYDRORIAL CIRCUMSTANCES? YES  NORMAL CIRCUMSTANCES? YES  SIGNBRICANTLY DISTURBED: NO  POTENTIAL PROBLEM AREA? NO	Vegetation Remarks:							
DEPTH OF SURFACE WATER: N/A (in)  DEPTH TO SATURATED SOIL: >16 (in)  DEPTH TO FREE WATER IN PIT: None (in)  PREMARY WETLAND INDICATORS:  SCONDARY WETLAND INDICATORS:  NONE  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville sitry clay, 0 percent slopes (flast)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE IF NO, SOIL TYPE ENCOUNTERED?  PROPTILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATERIX COLOR (MUNSELL MOIST)  (MUNSELL MOIST)  (MUNSELL MOIST)  (MUNSELL MOIST)  TEXTURE, CONCRETIONS, STRUCTURE, ETC.  0-10  A 10yr 3/2 0 Slit Loam  10+  B 10yr 4/2 10yr 4/6 10%  Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  IS THIS SAMPLING FORTY WITHIN A WETLAND? NO  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  IS THIS AN ISOLATED WETLAND? N/A  HYDRIC SOILS PRESENT? YES  NORMAL CIRCUMSTANCES? YES  SIGNIFICANTLY DISTURBED: NO  POTENTIAL PROBLEM AREA? NO				H	DROLOGY			
DEPTH 10 FREE WATER IN PTT: None (in)  PRIMARY WETLAND INDICATORS:  Note  REMARKS:  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytwille slity clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  (MUNSELL MOIST)  O-10  A 10yr 3/2 0 Silt Loam 10+ B 10yr 4/2 10yr 4/6 10% Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No  IS THIS SAMPLING POINT WITHIN A WETLAND? No WETLAND DETERMINATION  HYDROCHYTIC VEGETATION PRESENT? No SIT DIS SAMPLING POINT WITHIN A WETLAND? NO WETLAND FRESENT? YES  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM ARRA? No	RECORDED DATA?			Describe:				
PRIMARY WETLAND INDICATORS:  None  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoyeville sility clay, 0 percent slopes (flats)  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  C-10  A  10y7 3/2  0  Silt Loam  10+  B  10y7 4/2  10y7 4/6 10%  Silty clay Loam  HYDROL FOSL INDICATORS:  Gleyed  WETLAND DETERMINATION  HYDROPHTIC VEGETATION PRESENT? No  WETLAND DETERMINATION  HYDROPHTIC VEGETATION PRESENT? No  US THIS SAMPLING POINT WITHIN A WETLAND? No  WETLAND RESENT? YES  NORMAL CIRCUMSTANCES? YES  SIGNIBICANTLY DISTURBED: No  POTENTIAL PROBLEM AREA? NO	DEPTH OF SURFACE WATE	er: N/A	(in)		DEPTH TO SATU	RATED SOIL: >16 (in)		
REMARKS:  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats)  DRAINAGE CLASS: Very poorly drained  TAXONOMY (SUBGROUP):  FIELD OSSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  GUIVA/2  104  104  B  104  104  B  1074/2  1074/610%  Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND TURNER OF THE SAMPLING POINT WITHIN A WETLAND? NO  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNERCANTLY DISTURBED: NO  POTENTIAL PROBLEM AREA? NO			e (in)					
REMARKS:    SOILS	PRIMARY WETLAND INDI	CATORS:	***		SECONDARY W	TLAND INDICATORS:		
SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville sitry clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  O-10  A 10yr 3/2  0 Silt Loam  10+  B 10yr 4/2  10yr 4/2  10yr 4/2  10yr 4/6 10%  Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNERICANTLY DISTURBED: NO  POTENTIAL PROBLEM AREA? NO	None				_			
SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville sitry clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  O-10  A 10yr 3/2  0 Silt Loam  10+  B 10yr 4/2  10yr 4/2  10yr 4/2  10yr 4/6 10%  Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  IS THIS SAMPLING POINT WITHIN A WETLAND? NO  WETLAND HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNERICANTLY DISTURBED: NO  POTENTIAL PROBLEM AREA? NO								
MAP UNIT NAME (SERIES AND PHASE): Hoytville sitry clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MOTTLE COLOR (MUNSELL MOIST)  O-10  A 10yr 3/2 0 Silt Loam  10+ B 10yr 4/2 10yr 4/6 10%  Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? NO  IS THIS SAMPLENG POINT WITHIN A WETLAND? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIBICANTLY DISTURBED: NO  POTENTIAL PROBLEM AREA? NO	Remarks:		<u> </u>					
TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYTE. IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  MATRIX COLOR (MUNSELL MOIST)  (MUNSELL MOIST)  O-10  A 10yr 3/2 0 Silt Loam  10+ B 10yr 4/2 10yr 4/6 10% Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No  Is This Sampling Point Within a Wetland? No  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No  POTENTIAL PROBLEM AREA? No					SOILS			
PROFILE DESCRIPTION    Depth (Inches)   Horizon   Matrix Color (Munsell Moist)   Mottle Color (Munsell Moist)   Structure, Concretions, Structure, etc.	MAP UNIT NAME (Series	and Phase): H	loytville silty clay,	0 percent slopes (fla	ats)		DRAINAGE CLASS: Very poorly drained	
MATRIX COLOR (MUNSELL MOIST)  O-10 A 10yr 3/2 0 Silt Loam  10+ B 10yr 4/2 10yr 4/6 10% Silty clay Loam  Hydric Soil Indicators:  Gleyed  Remarks: Typical for soil type.  WETLAND DETERMINATION  Hydrophytic Vegetation Present? No  Wetland Hydrology Present? No  Is This Sampling Point Within a Wetland? No  Wetland Hydrology Present? No  Is This An Isolated Wetland? N/A  Hydric Soils Present? Yes  Normal Circumstances? Yes  Signericantly Disturbed: No  Potential Problem Area? No	TAXONOMY (SUBGROUP):		FIEL	D OBSERVATIONS CO	ONFIRM MAPPED TY	PE. IF NO, SOIL TYPE ENCO	untered?	
DEPTH (INCHES) HORIZON (MUNSELL MOIST) (MUNSELL MOIST) STRUCTURE, ETC.  0-10 A 10yr 3/2 0 Silt Loam  10+ B 10yr 4/2 10yr 4/6 10% Silty clay Loam  HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No IS THIS SAMPLING POINT WITHIN A WETLAND? No WETLAND HYDROLOGY PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No				Profil	E DESCRIPT	ON		
10+ B 10yr 4/2 10yr 4/6 10% Silty clay Loam  Hydric Soil Indicators:  Gleyed  Remarks: Typical for soil type.  WETLAND DETERMINATION  Hydrophytic Vegetation Present? No Is This Sampling Point Within a Wetland? No  Wetland Hydrology Present? No Is This An Isolated Wetland? N/A  Hydric Soils Present? Yes  Normal Circumstances? Yes Significantly Disturbed: No Potential Problem Area? No	Depty (INCHES) HORIZON				M	OTTLE COLOR	•	
HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No  Is This Sampling Point Within a Wetland? No  WETLAND HYDROLOGY PRESENT? No  Is This An Isolated Wetland? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No  POTENTIAL PROBLEM AREA? No	i i		, ,	MICHSELL MIOIST)	) (M	UNSELL MOIST)	STRUCTURE, ETC.	
HYDRIC SOIL INDICATORS:  Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No.  Is This Sampling Point Within a Wetland? No.  WETLAND HYDROLOGY PRESENT? No.  Is This An Isolated Wetland? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No.  POTENTIAL PROBLEM AREA? No.	0-10	A	- '	·	) (M			
Gleyed  REMARKS: Typical for soil type.  WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No. IS THIS SAMPLING POINT WITHIN A WETLAND? No.  WETLAND HYDROLOGY PRESENT? No. IS THIS AN ISOLATED WETLAND? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No. POTENTIAL PROBLEM AREA? No.				10yr 3/2		0	Silt Loam	
WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No IS THIS SAMPLING POINT WITHIN A WETLAND? No  WETLAND HYDROLOGY PRESENT? No IS THIS AN ISOLATED WETLAND? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No				10yr 3/2		0	Silt Loam	
WETLAND DETERMINATION  HYDROPHYTIC VEGETATION PRESENT? No Is This Sampling Point Within a Wetland? No  WETLAND HYDROLOGY PRESENT? No Is This An Isolated Wetland? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No	10+ HYDRIC SOIL INDICATORS	В		10yr 3/2		0	Silt Loam	
HYDROPHYTIC VEGETATION PRESENT? No.  IS THIS SAMPLING POINT WITHIN A WEILAND? NO.  WEILAND HYDROLOGY PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No. POTENTIAL PROBLEM AREA? No.	10+ HYDRIC SOIL INDICATORS	В		10yr 3/2		0	Silt Loam	
HYDROPHYTIC VEGETATION PRESENT? No.  IS THIS SAMPLING POINT WITHIN A WEILAND? NO.  WEILAND HYDROLOGY PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No. POTENTIAL PROBLEM AREA? No.	10+ HYDRIC SOIL INDICATORS Gleyed	B ≈		10yr 3/2		0	Silt Loam	
WETLAND HYDROLOGY PRESENT? No IS THIS AN ISOLATED WETLAND? N/A  HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No	10+ HYDRIC SOIL INDICATORS Gleyed	B ≈		10yr 3/2 10yr 4/2		0 10yr 4/6 10%	Silt Loam	
HYDRIC SOILS PRESENT? Yes  NORMAL CIRCUMSTANCES? Yes  SIGNEFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No	10+  HYDRIC SOIL INDICATORS Gleyed REMARKS: Typical for so	B ≳ il type.		10yr 3/2 10yr 4/2 WETLAND	DETERMIN	0 10yr 4/6 10%	Silt Loam	
NORMAL CIRCUMSTANCES? Yes SEGNEFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? No	HYDRIC SOIL INDICATORS Gleyed REMARKS: Typical for so	B  il type.  ON PRESENT? N		10yr 3/2 10yr 4/2 WETLAND Is This Sample	DETERMIN NG POINT WITHIN A	0 10yr 4/6 10% ATION	Silt Loam	
	10+  HYDRIC SOIL INDICATORS Gleyed  REMARKS: Typical for so  HYDROPHYTIC VEGETATIC  WETLAND HYDROLOGY P	B  il type.  on Present? No		10yr 3/2 10yr 4/2 WETLAND Is This Sample	DETERMIN NG POINT WITHIN A	0 10yr 4/6 10% ATION	Silt Loam	
	HYDRIC SOIL INDICATORS Gleyed REMARKS: Typical for so HYDROPHYTIC VEGETATION WETLAND HYDROLOGY P HYDRIC SOILS PRESENT?	B  il type.  on Present? No  Yes		10yr 3/2 10yr 4/2  WETLAND Is This Sampli	DETERMIN NG POINT WITHIN A	0 10yr 4/6 10%  ATION WETLAND? NO	Silt Loam Silty clay Loam	
HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators	HYDRIC SOIL INDICATORS Gleyed REMARKS: Typical for so HYDROPHYTIC VEGETATIO WETLAND HYDROLOGY P HYDRIC SOILS PRESENT? NORMAL CIRCUMSTANCE	B  il type.  on Present? No resent? No Yes s? Yes	Jo.	10yr 3/2 10yr 4/2 WETLAND Is This Sampli Is This Am Ison Significantly	DETERMIN NG POINT WITHIN A ATED WETLAND?	0 10yr 4/6 10%  ATION WETLAND? NO N/A POTENTI	Silt Loam Silty clay Loam  AL PROBLEM AREA? No	

r wildlife – high quality p

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field For	m Quantitative Rating				
Site: WMA	INCI	Rater(s):	RHOOK	Date: 9	21/09
	Metric 1. Wetland A		•		
men 6 pts. subtotal S	>50 acres (>20.2ha) (6 pts   25 to <50 acres (10.1 to <2   10 to <25 acres (4 to <10.1 do <4   10 to <25 acres (4 to <10.1 do <4   10 to <4	) (0.2he) (5 pts) ha) (4 pts) i) (3 pts) (2ha) (2pts) i0.12ha) (1 pt)	0.1 aen	<b>e</b> -	
rrex 14 pts. subtotsi 2	Metric 2. Upland but a. Calculate average buffer width.  WIDE. Buffers average 50  MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers buffer	Select only one arm (164R) or more 25m to <50m (82 e 10m to <25m (< average <10m (< . Select one or d rolder forest, prail), shrubland, youn idential, fenced p	nd assign score. Do not around wetland perime to <164ft) around wetland perime (2ft) around growth forest (2ft) around growth forest (2ft) around wetland perime (2ft) around (2ft) ar	of double check.  ster (7)  and perimeter (4)  effand perimeter (1)  primeter (0)  ige.  area, etc. (7)  t. (5)  tion tillage, new fallow field. (3)	
max 30 pts. subtotal 3	Metric 3. Hydrology  a. Sources of Water. Score all that High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surface water (taken of the control of the	apply.  ce water (3)  ke or stream) (5)  ily one and assign  (2)  c regime. Score	3d. Dun	nectivity. Score all that apply.  100 year floodplain (1)  Between stream/lake and other Part of wetland/upland (e.g. fore Part of riparian or upland comide ation inundation/saturation. Score Semi- to permanently inundated Regularly inundated/saturated (2) Seasonally saturated in upper 30 at average.	st), complex (1) or (1) one or dbi chec /saturated (4) 3)
9 34	Recovered (7) Recovering (3) Recent or no recovery (1)  Metric 4. Habitat Al	ditch tile dike weir stormwat	er input	point source (nonstormwater) filling/grading road bed/RR track dredging other	
max 20 pts. subvioled 4	a. Substrate disturbance. Score on Blone or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) b. Hebitat development. Select only Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to feir (2) Poor (1) c. Hebitat alteration. Score one or other contents of the	e or double check y one and assign :	and everage. score.	rici il.	
34 subtodal this page	None or none apparent (9)  Recovered (6)  Recovering (3)  Recent or no recovery (1)	grazing  clearcutti selective	cutting bris removal	shrub/sapting removal herbaceous/aquatic bed remova sedimentation dredging farming nutrient enrichment	

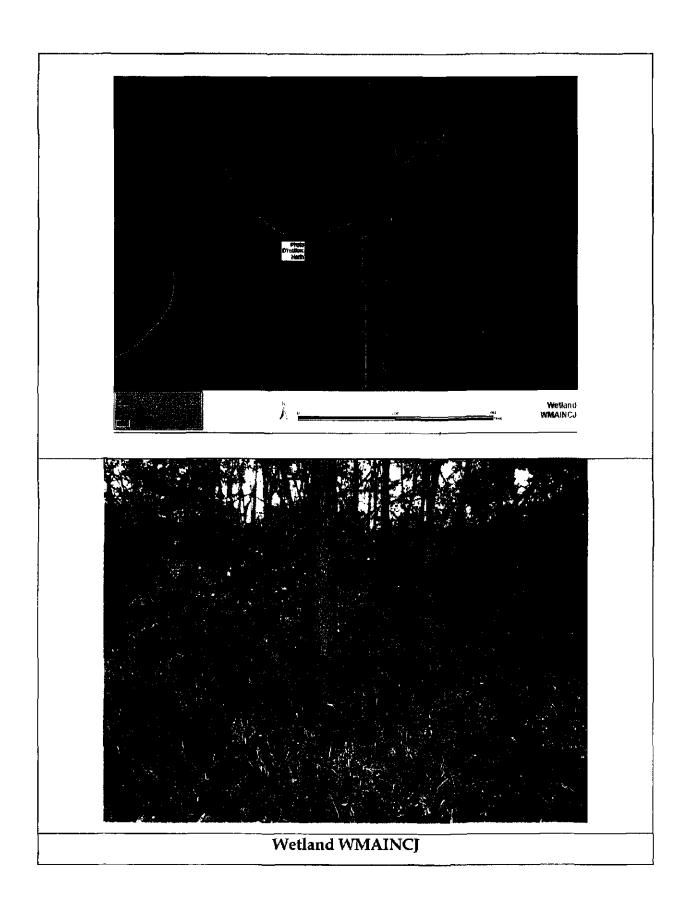
last revised 1 February 2001 jjm

Site:	WMAINCE	Rater(s):	Z	Hook	Date: 9/2/99
5	Metric 5. Special  Check all that apply and score as  Bog (10)  Fen (10)  Old growth forest (10)  Mature forested wettank	indicated.			
3 (	Lake Erie coastal/tribut Lake Erie coastal/tribut Lake Piein Sand Preirie Relict Wet Preiries (10) Known occurrence state Significant migratory ac Category 1 Wetland. S	ary wetland-unrestri ary wetland-restrick is (Osk Openings) ( e/federal threatened ingbird/water fowl hi see Question 1 Qual	id hydro 16) I or end abitat o litetive i	ology (5) angered species (10) r usage (10) Rating (-10)	otopography
	subsest 6a. Wetland Vegetation Commun			Community Cover Scale	otopograpity.
LIEST VO Poer	Score all present using 0 to 3 sca		0		(0.2471 acres) contiguous area
	Aquatic bed		1	Present and either comprise	
	Emergent		•	vegetation and is of mode	rate quality, or comprises a
	Shrub	<del></del>	<u></u>	significant part but is of lo	
	Forest		2	•	es significant part of wetland's
	Mudilats	· ·		_	rate quality or comprises a small
	Open water			pert and is of high quality	
	Other	<del></del>	3		ificant part, or more, of wetlend's
	6b. hortzontal (plan view) intersp	ersion		vegetation and is of high o	ruelity
	Select only one.				
	High (5)	Nam		<u>lescription of Vegetation Qua</u>	
	Moderately high(4)		low	Low spp diversity and/or pre	
	Moderate (3)			disturbance tolerant native	
	Moderately low (2)		mod	Native spp are dominant cor	
	Low (1)				disturbance telerant native spo
	None (0)	Defe-			species diversity moderate to
•	6c. Coverage of invasive plants.			moderately high, but gene	- · ·
	to Table 1 ORAM long form for its	AOG	hiat.	threatened or endangered	
	or deduct points for coverage	/ E\	high	A predominance of native s	• • • • • • • • • • • • • • • • • • • •
	Extensive >75% cover	• •		- B	it native spp absent or virtually
	Moderate 25-75% cove	<b>,</b> ,			rsity and often, but not always,
,	Sparse 5-25% cover (-1	•		i une presence of rare, orres	stened, or endangered spp
	Nearly absent <5% cov	• •	<b></b>	d &	
	Absent (1)			d Open Water Class Quality	<del></del>
	6d, Microtopography.		<u> </u>	Absent <0.1ha (0.247 acres	
	Score all present using 0 to 3 sca		1	Low 0.1 to <the (0.247="" 2.<="" td="" to=""><td></td></the>	
	Vegetated hummucks/t		2	Moderate 1 to <4ha (2.47 to	
	Coarse woody debris > Standing dead >25cm (		3	High 4ha (9.88 acres) or mo	10
	- Amphibian breading po				•
	Tankinsi masud bo	us <u>elici</u>		raphy Cover Scale	

Present very small amounts or if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality Present in moderate or greater amounts

of marginal quality



SURVEY TYPE: Blue	e Creek Wi	nd Fa	rm	_				No.: WMAI		
		T	Cran mi (Da	otpor N. Lur.	Lloadlar			REAM ID NO: <b>SM</b> Tue Creek Wind F		.D
DATE:			CHENTER	OJECT PIAME:	r rear clai	III WIIII EE	/ DI	ue Cleek Willa I	alill	
INVESTIGATORS: R Hook STATE/COUNTY: Ohio/Van W						Wert ROVER FILE: 0				QUAD NAME: Scott
Huc 12 Code: 041000070	0702		Township	: Union			PHO	TO No.: 0		
WETLAND QUALITY: Me-	dium					(D TYPE: Palus E: Forested	trine			
	PLANT SPE	CIES				STRATUM		INDICATOR		PERCENT COVER
1. Fraxinus pennsylvan	ica					Tree		Fac Wet		70 %
2. Crataegus sp.						Shrub		Fac Up		10 %
3. Toxicodendron radio	ans					Ierbaceous		Fac	+	10 %
4. Carex vesicaria				_		lerbaceous _		Obligate		40 %
5. Elymus riparius						lerbaceous		Fac wet	+	10 % 10 %
6. Cinna arundinacea						lerbaceous		Fac wet		10 76
PERCENT OF DOMINANT	SPECIES THAT AL	RE OBL, 1	FACW, FAC	W+, FACW-,	FAC+, OF	RFAC (EXCLUE	ing F	AC-); 83		
VEGETATION REMARKS:										
					Hydr	OLOGY				
RECORDED DATA?			1	DESCRIBE:	:					
DEPTH OF SURFACE WAT	er: N/A	A (in)			D	EPTH TO SATU	RATEL	Soil: >16 (in)	····	
DEPTH TO FREE WATER I	א Prr: Nor	ıe (in)								
PRIMARY WEILAND IND	ICATORS:				S	ECONDARY W	ETLANI	D INDICATORS:		
Water Marks		0			l v	Vater-Stained	Leaves	ŝ	F.	AC Neutral Test
Drift Lines		0			L	ocal Soil Surv	ev		0	
Remarks:	<b>-</b>								<del></del>	
					Sc	DILS			·····	
Map Unit Name (Serie	s and Phase): V	<i>Na</i> basha	silty clay						DRAIR	NAGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	:		FIELD	OBSERVATION	IS CONFIR	им Маррео Ту	PE. IF I	No, Soil Type Enco	UNTER	ED?
				Pro	FILE D	ESCRIPT	ON			
DEPTH (INCHES) HORIZON MATRIX COLOR MOTTLE COLOR (MUNSELL MOIST) TEXTURE, CONCRETIONS, STRUCTURE, ETC.										
0-9	A			10YR 4/2					Silt Loam	
9+	В	<u> </u>		10YR 5/1		10YR 4/6 10%				Silty Clay Loam
0	0			0				0		a
Hydric Soil Indicator	us:									
Listed Hydric Gleyed 0 0								0		
Remarks:										
				WETLA	ND DI	ETERMIN.	ATIC	ON		
HYDROPHYTIC VEGETAT	ION PRESENT?	Yes		Is This San	APLING PO	OINT WITHIN	WETT	LAND? Yes		
WETLAND HYDROLOGY	Present? Yes			Is This An	(SOLATE	WETLAND?	⁄es			
HYDRIC SOILS PRESENT?	Yes									
NORMAL CIRCUMSTANC	ES? Yes			SIGNIFICAN	nly Dist	URBED: No		POTENTI	al Proi	blem Area? No
D	ESCRIPTIC	N OF	WETLA	ND CROS	SING	TYPES AN	DV	VETLAND QU	ALIT	Y CRITERIA
HIGH QUALITY WETL										types - hydrologic and soil indicators observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

## ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek	· · · · · · · · · · · · · · · · · · ·			WETLAN	ID II	DNo.: UMA	INC]	·
					ASSOCIAT	ED W	ETLAND ID NO: $oldsymbol{W}$	MA	INCJ
DATE: 09/18/2009		CLIENT/PR	OJECT NAME:	Heart	land Wind LLG	C./ E	llue Creek Wind	Farm	
Investigators: Hook		STATE/CO	UNTY: Ohio/V	/an We	rt	Qυ	AD NAME: Scott		
Huc 12 Cope: 04100007	0701	Townshii	P: Union			PHO	ото <b>N</b> o.:		
WETLAND QUALITY: N/	<b>A</b>				AND TYPE: N/A YPE: Upland				*
	PLANT SPECIE	S			STRATUM		INDICATOR	T	PERCENT COVER
<ol> <li>Fraxinus pennsylvan</li> </ol>	ica.				Tree		Fac Wet		50 %
Lonicera maackii     Quercus palustris		<del>,,</del>	······		Shrub Tree		Upland Fac wet	+	10 % 10 %
4. Toxicodendron radio	ans				Herbaceous		Fac wet	+	20 %
5. Prunus serotina					Shrub		Fac Up		10 %
6.							<u> </u>		%
PERCENT OF DOMINANT	SPECIES THAT ARE	OBL, FACW, FAC	CW+, FACW-,	FAC+,	OR FAC (EXCLUE	ING I	FAC-): 60		Market since a since and
VEGETATION REMARKS:									
				HYE	ROLOGY				
RECORDED DATA?			Describe:						
DEPTH OF SURFACE WAT	rer: N/A (i	n)			<b>DEPTH</b> TO SATU	RATE	D SOIL: >16 (in)		
DEPTH TO FREE WATER I	N Pit: None (	in)							
PRIMARY WETLAND IND	ICATORS:				SECONDARY WI	TLAN	ID INDICATORS:		
None									
Remarks:									
					Soils			<del></del>	
Map Unit Name (Serie	S AND PHASE): Hoy	tville silty clay, (	0 percent slope					DR	AINAGE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	:	Field	OBSERVATION	IS CON	FIRM MAPPED TY	PE. IF	No, Soil Type En	COUNT	ered?
		•	Pro	FILE	DESCRIPTI	ON			
DEPTH (INCHES)	Horizon		MATRIX COL IUNSELL MO				LE COLOR ELL MOIST)		Texture, Concretions, Structure, etc.
0-8	A		. 10yr 4/2						Silt Loam
8+	В		10yr 5/1						Silty clay Loam
		. <u>.</u>			<u> </u>	_			
HYDRIC SOIL INDICATOR	ls:				· · · · · · · · · · · · · · · · · · ·				
Gleyed			<del></del>	<del></del>					L
REMARKS: Typical for s	oil type								
			WETLA	ND [	DETERMINA	\TI	ON		
Hydrophytic Vegetat	ION PRESENT? Yes		Is This San	MPLING	POINT WITHIN A	WET	LAND? No		
WETLAND HYDROLOGY			Is This An	ISOLAT	TED WETLAND?	1/A			
HYDRIC SOILS PRESENT?			ļ <u>.</u>						
NORMAL CIRCUMSTANC					STURBED: No				ROBLEM AREA? No
ַם	ESCRIPTION	OF WETLA	ND CROS	SINC	G TYPES AN	ID V	VETLAND Q	UAL	ITY CRITERIA
HIGH QUALITY WETT	AND: no indicatio	n of stress or dis	turbance in we	etland o	or adjacent area -	- dive	erse and mature ve	getatio	on types – hydrologic and soil indicators

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas ~ slightly altered natural vegetation, hydrology and/ or soil characteristics ~ provides suitable habitat for wildlife and vegetation ~ associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

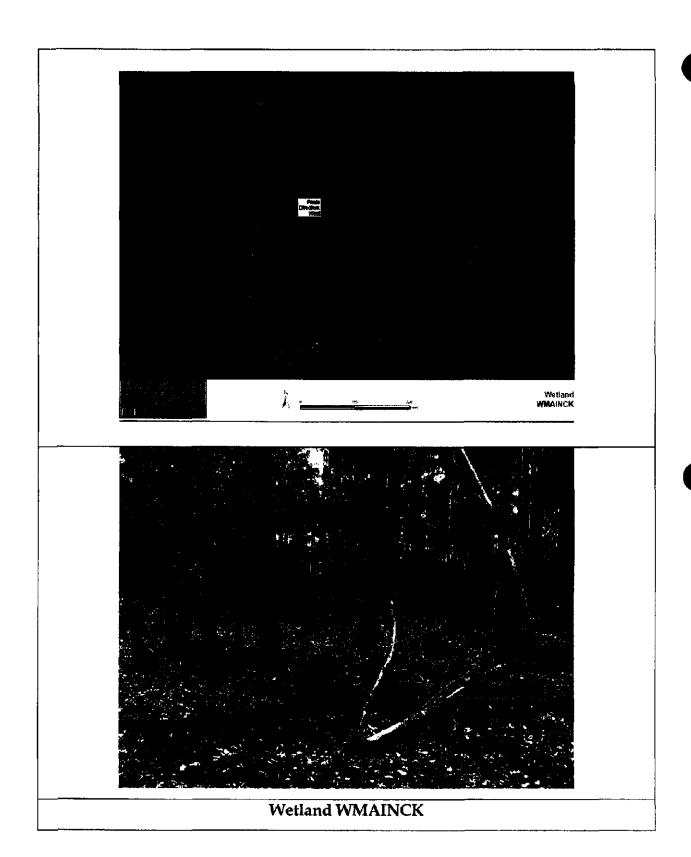
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field Form Quantitative Rating			
Site: WMAWCJ	Rater(s):	R HOOK	Date: 9/21/09
	and Area (size)	•	
man 6 pts. sublished Select one size class and 550 acres (>20.	2ha) (6 pts)		
	(10.1 to <20.2ha) (5 pts) (4 to <10.1ha) (4 pts)		•
	1.2 to <4ha) (3 pts) (0.12 to <1.2ha) (2pts)		
	s (0.04 to <0.12ha) (1 pt)		
	and buffers and	surrounding	land use.
	fer width. Select only one a average 50m (164R) or more		
MEDIUM. Buffe NARROW, Buff	rs average 25m to <50m (82 lers average 10m to <25m (	to <164ft) around wetlan 32ft to <82ft) around wet	nd perimeter (4) land perimeter (1)
VERY NARROV  2b. Intensity of surroundir	V. Buffers average <10m (< ng land use. Selectione or o	32ft) around wetland peri louble check and averag	meter (0) e.
VERY LOW. 2	nd growth or older forest, pra (>10 years), shrubland, your	irie, savannah, wildilfe ar	es, etc. (7)
MODERATELY	HIGH. Residential, fenced;	esture, park, conservatio	on tillage, new fallow field. (3)
13 22 Metric 3. Hyd	ndustrial, <del>o</del> pen pastura, row rology.	nobbad' unud' camer	Caronii (1)
mor 30 pts. subtestel 3g. Sources of Water. So	core all that apply.	3b. <u>Conn</u>	ectivity. Score all that apply.
High pH ground Qther groundwe			100 year floodplain (1) Between streem/lake and other human use (1)
Precipitation (1)	littent surface water (3)		Part of welland/upland (e.g. forest), complex (1 Part of riperian or upland corridor (1)
Perennial surface	e water (lake or stream) (5)  . Select only one and assig	3d. Durat	on inundation/saturation. Score one or dbl che Semi- to permanently inundated/saturated (
			Regularly inundated/saturated (3)
9.4 to 0.7m (15. 	(1)	• • • • • • • • • • • • • • • • • • • •	Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
	at hydrologic regime. Score		gverage.
Recovered (7)	oparent (12) Check all dist	moances observed	point source (nonstormwater)
Recovering (3) Recent or no re-	covery (1) tile		<b>itiing/grading</b> road bed/RR track
	weir	er innut	dredging other
10 32 Metric 4. Hab	itat Alteration a	nd Developm	ent.
men 20 pts. subtotel 4g. Substrate disturbance	<ul> <li>Score one or double check</li> </ul>	c and average.	
Recovered (3)	Armonic (+)		
Recovering (2) Recent or no re-		·	
4b. Habitat development.	Select only one and easign	score.	
Very good (6) Good (5)			
Moderately goo	i (4)		·
Fair (3) Poor to fair (2)			
Poor (1) 4c. Habitat alteration. Sc	ore one or double check and	average.	
None or none a	parent (9) Check all dist	rbances observed	
Bacovered (6)	mowing grazing	<u> </u>	shrub/sapling removal herbaceous/aquatic bed removal
Recent or no re			sedimentation dredging
32	woody de	ibris removal	farming
echtotal this made	toxic poli	utants	nutrient enrichment

OPAM v	5.0 Field Form	Refina
UKAMIY.	3.U PENO FUIUS	THE RE

Site: WMAINCT Rater(s): 7 Hook Date: 9/2  32  without the properation of the properation	
Metric 5. Special Wetlands.  Check all that apply and score as inclicated.  Bog (10) Fen (10) Old growth forest (10) Weature forested wetland (5) Lake Eric coestal/tributary wetland-unrestricted hydrology (10) Lake Eric coestal/tributary wetland-unrestricted hydrology (5) Lake Eric coestal/tributary wetland-restricted hydrology (6) Lake Eric coestal/tributary wetland-restricted hydrology (7) Relict Wet Prairies (Oek Openings) (10) Relict Wet Prairies (10) Relict Wet Prairies (Oek Openings) (10) Relict Wet Prairies (Oek Openings) (10) Relict Wet Prairies (Oek Openings) (10) Relict Wet Prairies (10) Roma cocurrence state/federal threatened or endangered species (10) Significant migratory songbirdwater fow hebitat or usage (10) Category 1 Wetland. See Question 1 Qualitative Reting (-10)  Metric 6. Plant communities, interspersion, microtopograph Research Reting (-10)  Metric 6. Plant communities, interspersion, microtopograph Research Reting (-10)  Metric 6. Plant communities, interspersion, microtopograph Research Reting (-10)  Metric 6. Plant communities, interspersion, microtopograph Research Reting (-10)  Metric 6. Plant communities, interspersion, microtopograph Research Reting (-10)  Relict Wet Prairies (Oek Openings) (10) Relict Wet Prairies (10) Relict Wet	<b>'y.</b>
6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale.  Aquatic bed Emergent Shrub Forest Open water Other	ıy.
### Second Represent using 0 to 3 scale.    Aquatic bed	ıy.
Score all present using 0 to 3 scale.  Aquatic bed  Emergent  Shrub  Forest  Muditats  Open water  Other  Select only one.  High (5)  Moderately high(4)  Moderately low (2)  Low (1)  None (0)  Absent or comprises <0.1ha (0.2471 acres) contig  1 Present and either comprises small part of wetian  vegetation and is of moderate quality, or comprise  significant part but is of low quality  Present and either comprises significant part of we vegetation and is of moderate quality or comprise part and is of high quality  Present and comprises significant part, or more, or vegetation and is of high quality  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnation disturbance tolerant native species  Matthewage are dominant component of the vegetation of the vegetation of disturbance tolerant native and/or disturbance tolerant native and/or disturbance tolerant native and/or disturbance tolerant native present, and species diversity mode	
Aquatic bed  Emergent  Shrub  Forest  Mudflats  Open water  Other  Select only one.  High (5)  Moderately high(4)  Moderately low (2)  Low (1)  None (0)  Present and either comprises small part of weiten vegetation and is of moderate quality, or comprise significant part but is of low quality  vegetation and is of moderate quality or comprise part and is of high quality  vegetation and is of high quality  Vegetation and is of high quality  Negetation and is of high q	-
Emergent Shrub Shrub Forest Present and either comprises significant part of we suggestation and is of moderate quality or comprise part and is of high quality or comprise part and is of high quality. Other Other Other Sh. horizontal (plan view) interspersion. Select only one.  High (5) Moderately high(4) Moderately high(4) Moderately low (2) Low (1) None (0)  Negetation and is of high quality vegetation and is of high quality.  Negetation and is of high qua	
Shrub Forest Forest Present and either comprises significant part of we vegetation and is of moderate quality or comprise part and is of high quality Other Other Other 3 Present and comprises significant part, or more, or vegetation and is of high quality Select only one.  High (5) Moderately high(4) Moderate (3) Moderately low (2) Low (1) None (0)  Significant part but is of low quality regetation and is of moderate quality or comprise significant part, or more, or vegetation and is of high quality  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative species  Native spp are dominant component of the vegetation of the vegetati	
Forest  Muditals  Other Other Other Select only one.  High (5) Moderately high(4) Moderately low (2) Moderately low (2)  None (0)  Present and either comprises significant part of we vegetation and is of moderate quality or comprise part and is of high quality.  Present and comprises significant part, or more, or vegetation and is of high quality.  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative disturbance tolerant native species.  Native spp are dominant component of the vegetation of the vegetati	BB 2
Mudifials Open water Open water Other Other Select only one.  High (5) Moderately high(4) Moderately low (2) Moderately low (2) None (0)  Mudifials  Vegetation and is of moderate quality or comprise part and is of high quality  Present and comprises significant part, or more, or vegetation and is of high quality  Negetation and is of high quality  Negetation and is of high quality  Vegetation and is of high quality  Vegetation and is of high quality  Negetation and is of high quality  Vegetation and i	atland's
Open water Other	
Other 3 Present and comprises significant part, or more, or vegetation and is of high quality  Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  None (0)  Negetation and is of high quality  vegetation and is of high quality  I we determine the vegetation and is of high quality  Vegetation and is of high quality  I we determine the vegetat	70 G 611/2m
Select only one.  High (5)  Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative disturbance tolerant native species  Moderately low (2)  mod Native spp are dominant component of the vegetation atthough nonnative and/or disturbance tolerant native species diversity moderately low (3)  None (0)	d wettands
High (5)  Narrative Description of Vegetation Quality  Moderately high(4)  Moderate (3)  Moderately low (2)  Low (1)  None (0)  Narrative Description of Vegetation Quality  Low spp diversity and/or predominance of nonnative disturbance tolerant native species  Mattive spp are dominant component of the vegetal atthough nonnative and/or disturbance tolerant native spp are dominant component of the vegetal native spp are dominant native spp are	
Moderately high(4)  Moderate (3)  Moderately low (2)  Moderately low (2)  Moderately low (2)  Moderately low (1)  Moderately low (2)  Moderately low (3)  Moderately low (4)  Moderately low (2)  Moderately low (2)  Moderately low (2)  Moderately low (3)  Moderately low (4)  Moderately low (2)  Moderately low (2)  Moderately low (2)  Moderately low (3)  Moderately low (4)  Moderately low (2)  Moderately low (3)  Moderately low (4)  Moderately low (4)  Moderately low (4)  Moderately low (4)  Moderately low (2)  Moderately low (4)  Moderately l	
Moderate (3)  Moderately low (2)  Low (1)  None (0)  Moderately low (2)  mod  Mative spp are dominant component of the vegeta  although nonnative and/or disturbance tolerant in  can also be present, and species diversity mode	
Moderately low (2) mod Native spp are dominant component of the vegeta low (1) although nonnative and/or disturbance tolerant in None (0) can also be present, and species diversity mode	Ae ol.
Low (1) although nonnetive and/or disturbance tolerant n  None (0) can also be present, and spacies diversity mode	tion
None (0) can also be present, and species diversity mode	
	• • •
to Table 1 ORAM long form for list. Add threatened or endangered spp	
or deduct points for coverage high A predominance of native species, with nonnative	epp
Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or	
Moderate 25-75% cover (-3)  absent, and high spp diversity and often, but not	•
Sparse 5-25% cover (-1) the presence of rare, threatened, or endangered	500
Nearly absent <5% cover (0)	
Absent (1) Kudfigt and Open Water Class Quality	
6d. Microtopography. 0 Absent <0.1ha (0.247 acres)  Score all present using 0 to 3 scale. 1 Low 0.1 to <1ha (0.247 to 2.47 acres)	
Vegetated hummucks/tussucks 2 Moderate 1 to <4ha (2,47 to 9.88 acres)	
Coarse woody debris >15cm (6in) 3 High 4ha (9.88 acres) or more	
Standing dead >25cm (10in) dbh	
Amphibian breeding pools Microtopography Cover Scale	
0 Absent	
1 Present very small amounts or if more common	<del>-</del>
of marginal quality	
2 Present in moderate amounts, but not of highest	
quality or in small amounts of highest quality	
3 Present in moderate or greater amounts	
and of highest quality	_
40 GRAND TOTAL (max 100 pts)	

Refer to the most recent ORAM Score Calibration Report for the according breekpoints between wetlend categories at the following address: http://www.epa.atete.ok.un/dam/401/401.html
lest revised: 1 February 2001 jjm





SURVEY TYPE: Blu	e Creek Wind F	arm	·	WETLAND ID NO.: WMAINCK ASSOCIATED STREAM ID NO: N/A				
D. 100 / 21 / 2000		CLIENT/PROJECT NAME:	Haartland					
DATE: 09/21/2009	<del> </del>		<del></del>	1 WING LL				
INVESTIGATORS: Hook STATE/COUNTY: Ohio/Van Wert					ROVER FILE: RAH0909	21.cor	QUAD NAME: Soutt	
Huc 12 Cope 04100007	0702	TOWNSHIP: Union		ļ	<b>Р</b> ното <b>N</b> о.:			
WEILAND QUALITY: Me	dium		WETLAND SUBTYPE:	TYPE: Palus Forested	trine			
<del></del>	PLANT SPECIES		S1	TRATUM	INDICATOR		Percent Cover	
1. Quercus palustris				Tree	Fac Wet		20 %	
2. Fraxinus pennsylvan	ica			Tree	Fac Wet		70 % 10 %	
Ulmus rubra     Gleditsia triacanthos			Не	Tree erbaceous	Fac Fac	+-	10 %	
5.				.i oaccous			%	
6.							%	
PERCENT OF DOMINANT	SPECIES THAT ARE OBL	, FACW, FACW+, FACW-,	, FAC+, or i	FAC (EXCLUE	ING FAC-): 100			
Vegetation Remarks:	'							
			HYDRO	DLOGY				
RECORDED DATA?		DESCRIBE:						
DEPTH OF SURFACE WAT	rer: N/A (in)		De	PTH TO SATU	RATED SOIL: >16 (in)			
DEPTH TO FREE WATER I	N Pit: None (in)							
PRIMARY WETLAND IND	ICATORS:	· · · · · · · · · · · · · · · · · · ·	Sec	CONDARY W	TLAND INDICATORS:			
Water Marks			Ĺος	cal Soil Surv	ey			
Drift Lines			FA	C Neutral T	æ\$t .			
Remarks:								
SOILS PRINTER CLASS Suppossibility and a social section of the sec								
Map Unit Name (Serie	ercent slope	s	_	DRAIN. drained	AGE CLASS: Somewhat poorly I			
TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?							0?	
PROFILE DESCRIPTION								
Depth (Inches)	DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST)			MOTTLE COLOR (MUNSELL MOIST)			TEXTURE, CONCRETIONS, STRUCTURE, ETC.	
0-6	A	10YR 3/1		10YR 4/6 10			Silt Loam	
8+	В	10YR 4/1		10YR 4/65%			Silty Clay Loam	
Hydric Soil Indicator			<del>_</del> .			<u></u>	· · · · · · · · · · · · · · · · · · ·	
Listed Hyd	<del></del>							
Listed Hydric Gleyed  Remarks:								
		WETLA	ND DE	TERMIN.	ATION			
HYDROPHYTIC VEGETATION PRESENT? Yes IS THIS SAMPLING POINT WITHIN A WETLAND? Yes								
WETLAND HYDROLOGY				WETLAND? I	_			
HYDRIC SOILS PRESENT?					_			
NORMAL CIRCUMSTANC		SIGNIFICAL	MTLY DISTU	RBED: No	POTENT	IAL PROBI	EM AREA? No	
D	ESCRIPTION OF	WETLAND CROS	SSING T	YPES AN	D WETLAND O	UALITY	CRITERIA	
	DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITERIA							

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area - diverse and mature vegetation types - hydrologic and soil indicators are characteristic of the specific community type - provides suitable habitat for wildlife - high quality perennial streams are often observed. MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality

and aren't significantly disturbed.

LOW QUALITY WETLAND; severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.



### ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blu	e Creek						UMAIN		
ASSOCIATED WETLAND ID NO: WMAINCK  Date: 09/18/2009 Client/Project Name: Heartland Wind LLC./ Blue Creek Wind Farm									
INVESTIGATORS: Hook STATE/COUNTY: Ohio/Van Wert QUAD NAME: Scott									
Huc 12 Code: 041000070707 Τοψηςκής: Union Photo No.:									
			TOWNSHIP: UI	nuon		PHOIO NO.	•		
WEILAND QUALITY: N/	<b>\</b>				TLAND TYPE: N/A TYPE: Upland				
	PLANT SPE	CIES			STRATUM	IN	DICATOR	PERCENT COVER	
1. Acer saccharum					Tree		Fac Up	50 %	
2. Juglans nigra					Tree		Fac Up	50 %	
<ol><li>Carex pennsylvanica</li></ol>					Herbaceous		Upland	5%	
4. Toxicodentron radica	ıns				Herbaceous		Fac	30 %	
5. Parthenocissus quin					Herbaceous		Fac Up	5 %	
6. Polygonum virginiar	um				Herbaceous	L	Fac	10 %	
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL,	FACW, FACW+	, FACW-, FAC	+, or FAC (exclui	DING FAC-): 5	50		
Vegetation Remarks:			=						
				Нү	DROLOGY				
RECORDED DATA?			Desc	RIBE:	<b>.</b>				
DEPTH OF SURFACE WAT		A (in)	· <del></del>	· <del></del>	DEPTH TO SATE	URATED SOIL:	>16 (in)		
DEPTH TO FREE WATER		ne (in)	· · · · · · · · · · · · · · · · · · ·			<u> </u>			
PRIMARY WETLAND IND	ICATORS:		<del> </del>		SECONDARY W	ETLAND INDIC	ATORS:		
None			<u> </u>						
		_		ļ	ļ			1	
Remarks:									
			*		SOILS				
Map Unit Name (Serie	S AND PHASE);	Hoytville	silty clay, 0 per	cent slopes (fla	ts)			DRAINAGE CLASS: Very poorly drained	
TAXONOMY (SUBGROUP)	:		FIELD OBS	ervations Co	nfirm Mapped T	PE. If No, So	IL TYPE ENCOL	INTERED?	
				PROFILI	DESCRIPT	ION	····		
DEPTH (INCHES) HORIZON MATRIX COLOR MOTTLE COLOR TEXTURE, CONCRETIONS, (MUNSELL MOIST) STRUCTURE, ETC.									
0-8	A		1	0yr 3/2				Silt Loam	
8+	В		1	0yr 4/4		10yr 4/2 30%	<u> </u>	Silt Loam	
Themse Con Tunes			<u> </u>	<del></del>			<u> </u>		
HYDRIC SOIL INDICATORS:  None									
None  Remarks: Atypical for this soil type.									
			V	VETLAND	DETERMIN	ATION			
Hyprophytic Vegetat	ION PRESENT?	No	Is	THIS SAMPLIN	G POINT WITHIN	A WETLAND?	No		
WEILAND HYDROLOGY					ATED WETLAND?				
Hypric Soils Present	No								
NORMAL CIRCUMSTANC	E5? Yes		S	IGNIFICANTLY I	DISTURBED: No		POTENTIA	L Problem Area? No	
D	ESCRIPTIO	N OF	WETLAND	CROSSIN	ig Types an	ND WETL	AND QUA	ALITY CRITERIA	
HIGH QUALITY WETI	specific commu							ation types - hydrologic and soil indicators often observed.	

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

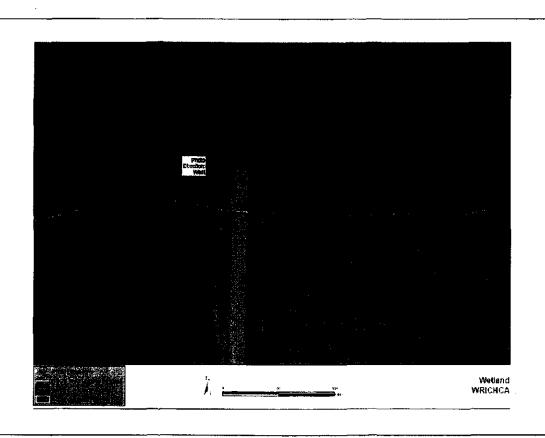
LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or ditching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

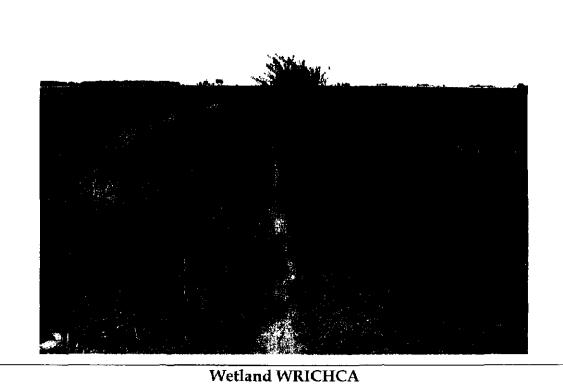
Site:	Rater(s):		Date: 9/2
Metric 1. We	tland Area (size).	<del></del>	
max b ps. subjert Selectione size class and a	•		
>50 acres (>20.2	ha) (6 pts)		
The state of the s	10.1 to <20.2ha) (5 pts) 1 to <10.3ha) (4 pts)		
3 to <10 acres (1			
	.12 to <1.2ha) (2pts)		
0.1 acres (0.04)	(0 04 to ≤0 12ha) (1 pt)		
10.1 acres (0.04	a) to pisj		
	land buffers and su		use.
	er width. Select only one and assign sco		
	rerage 50m (164ft) or more around wetta s average 25m to <50m (82 to <164ft) ar		
NARROW. Buffe	rs average 10m to <25m (32ft to <82ft) :	around wetland perimeter (1)	
	Buffers average <10m (<32ff) around v		
2b. Intensity of surrounding	land use. Select one or double check : growth or older forest, prairie, savannat	and average.	
	·10 years), shrubland, young second gro		
MODERATELY	IIGH. Residential, fenced pasture, park,	conservation tilisge, new failow fiel	id. (3)
HIGH. Urban, inc	lustrial, open pasture, row cropping, min	ing, construction. (1)	
11733 Metric 3. Hy	dratom	1	
max 30 pts. septembl 3a. Sources of Water. Soc		3b. Connectivity. Score all the	t annh
High pH groundw		100 year floodplain (1	
Cither groundwall	er (3)		and other human use (1)
Precipitation (1)	tent surface water (3)		d (e.g. forest), complex (1)
Total Control	water (lake or stream) (5)	Part of riparian or upli  3d. Duration inundation/sature	• •
3c. Maximum water depth.	Select only one and assign score.		inundated/seturated (4)
>0.7 (27.6in) (3)	to the state of	Regularly inundated/s	` ,
0,4 to 0.7m (15.7 <0,4m (<15.7in) (		Seasonally inundated Seasonally saturated	(2) in upper 30cm (12in) (1)
	hydrologic regime. Score one or doubte	check and average.	
None or none ap	parent (12) Check ell disturbances ob	served	
Recovered (7)	ditch	point source (nonsion	mwaler)
Recovering (3) Recent or no reco	overy (1) tile	filling/grading road bed/RR track	
- Instant	weir	dredging	
	slormwater input	other	
	<u> </u>		
18 5 Metric 4. Ha	bitat Alteration and	Development.	
	Score one or double check and average	).	
None or none app Recovered (3)	parent (4)		
Recovering (2)			
Recent or no reco			
4b. Habitat development. Excellent (7)	Select only one and assign score.		
Very good (6)			
<b>◯</b> Good (5)			
Moderately good Fair (3)	(4)	•	
Poor to fair (2)			
Poor (1)			
	re one or double check and average.		
None or none app			
Recovered (6) Recovering (3)	mowing grazing	ahrub/sapling remova herbaceous/aquatic b	
Recent or no reco	wery (1) clearcutting	sedimentation	
100	selective cutting	dredging	
5[_	woody debris remova	faming nutriest enrichment	
subtotal this page			

	,-				<del></del>
Site:	<u> </u>	K	Rater(s):		Date:
		7	•		
	<u> </u>				
	subjected this pa	se ·			
_					
مسب		Metric 5. S	pecial Wetlands	•	
x 10 pts.	subtotal	Check all that apply and	score as indicated.		
		Bog (10)			
		Fen (10)			
		Old growth for	est (10)		
		Mature foreste	d wetland (5)		
		<b>→</b>	stal/tributary wetland-unrestricted i		
			stal/tribulary welland-restricted hyd	drology (5)	
		-	nd Prairies (Oak Openings) (10)		
		Relict Wet Pra	· ·	يتجدده ليموجون	(10)
		<u> </u>	ence state/federal threatened or or		35 (1V)
			pratory songbird/water fowt habitat etland. See Question 1 Qualitative		
<i>4</i> 55	10	T LCalegory : TVI	MISHID. GOE COCSIDIT I GUARISINA	a retaining f- rest	
$\mathcal{Q}$	13	Matric 6 D	lant communitie	e intere	spersion, microtopography.
~			and the second s		
n 20 pts.	subiotei	6a. Wetland Vegetation		O Abs	ver scare sent or comprises < 0.1ha (0.2471 acres) contiguous area
		Score all present using ( Aquatic bed			esent and either comprises small part of welland's
		○ Emergent		1 1	egetation and is of moderate quality, or comprises a
		O Shrub		i i	ignificant part but is of low quality
		2 Forest	<del></del>		sent and either comprises significant part of wetland's
		() Mudials		i	egetation and is of moderate quality or comprises a small
		Open water		p	art and is of high quality
		Other		3 Pre	sent and comprises significant part, or more, of wetland's
		6b, horizontal (pian view	v) Interspersion.	V	egetation and is of high quality
		Select only one.			
		High (5)	Narrativa I	Description of V	egetation Quality
		Moderately hig	gh(4) k		w spp diversity and/or predominance of nonnative or
		Moderate (3)			isturbance tolerant native species
		Moderately in	# (2) m	1	live spp are dominant component of the vegetation,
		Low (1)			Ithough nonnative and/or disturbance tolerant native spp
		None (0)			an also be present, and species diversity moderate to
		6c. Coverage of invasiv			noderately high, but generallyw/o presence of rare
		to Table 1 ORAM long & or deduct points for cover			reatened or endangered spp oredominance of native species, with nonnative spp
		Extensive >75		7 1	ind/or disturbance tolerant native spo absent or virtually
			75% cover (-3)		ibsent, and high app diversity and often, but not always,
		Sparse 5-25%	* '		he presence of rare, threatened, or endangered spp
			t <5% cover (0)		
		Absent (1)	Mudflat ar	nd Open Water C	lass Quality
		6d. Microtopography.		D Ab	sent <0.1ha (0.247 acres)
		Score all present using		1 Lo	w 0.1 to <1ha (0.247 to 2.47 acres)
		○ Vegetaled hur		****	derate 1 to <4ha (2.47 to 9.88 acres)
			,	3 Hig	th 4ha (9.88 acres) or more
			d >25cm (10in) dbh	_	
		2 Amphibian bro		graphy Cover Sc	
					senl
					esent very small amounts or if more common
			<u></u>		i marginal quality
				E .	esent in moderate amounts, but not of highest
					wally or in small amounts of highest quality
					esent in moderate or greater amounts and of highest quality
7	_				san de traditional Andrean

GY GRAND TOTAL (max 100 pts)

Refer to the most resent CRAM Socie Calibration Report for the accoring breakpoints between welliand categories at the following biddress: http://www.epis.ataix.ch.us/dats/401/401.mml







ASSOCIATED STRAMM ID NOT NAME.  DATE: 10/14/2009  CLIENT/PROJECT NAME. Heartland Wind LLC / Blue Creek Wind Farm  NVESTIGATORS: Hook  STATE/COUNTY: Ohio/Van Wert  ROYER File RAHD91014A.cor  QUAD NAME: Convoy  HUC 12 CODE 041000670703  TOWNSHIF: Union  PHOTO No.: 013  WETLAND QUALITY: Low  WETLAND QUALITY: Low  SUITIVE Emergent  PLANT SPECIES  STRATUM  NDICATOR  PERCENT COVER  SUITIVE Emergent  PLANT SPECIES  STRATUM  NDICATOR  PERCENT COVER  J. Leersia oryzoides  Jethoecous  Obligate  20 %  S. Typha latifolia  Jethoecous  Obligate  30 %  4.  5.  S.  PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW+, FAC (EXCLUDINC FAC): 100  VEGETATION RIMARKS: drainage disch  HYDROLOGY  RECORDED DATA?  DESCRIBE:  DESTINOT SURFACE WATER: N/A (in)  DEPTIN TO SURFACE WATER: N/A (in)  DEPTIN TO SURFACE WATER: N/A (in)  DEPTIN TO SURFACE WATER: N/A (in)  PRIMARY WETLAND INDICATORS:  SACONDARY WETLAND INDICATORS:  SACUNDARY WET
Newstrators Hook   State/County: Chio/Van West   Rover File RAFD91014A.cor   Quad Name: Convoy
HUC12 CODE: 0410000/07/23  TOWNSHIP: Union  PHOTO NO2: 013  WETLAND QUALITY: Low  SUFFYPE Energent  PLANT SPECIES  STRATUM INDICATOR PERCENT COVER  1. Lecrisia oryzoides  Hefricaccous Obligate 20 % 2. Scirpus attroviews  Hefricaccous Obligate 50 % 3. Typha latifolia Hebrecous Obligate 30 % 4. % 5. Chingus Hebrecous Obligate 30 % 5. % 6. W PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW-, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 100  VEGETATION REMARKS: drainage ditch  HYDROLOGY  RECORDED DATA? DESCRIBE:  DEPTH OF SURFACE WATER IN PIT: 1 (in)  DEPTH OF SURFACE WATER IN PIT: 1 (in)  DEPTH TO FREE WATER IN PIT: 1 (in)  SECONDARY WETLAND INDICATORS:  Seturated Upper 12in  FAC Neutral Teel  CXI ROOT Channels  REMARKS: drainage ditch  TAKONOMY (SUBGROUP): FREE OBSERVATIONS CONFREM MATTED TYPE. IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  TEXTURE, CONCRETIONS, STRUCTURE, ETC.
WEILAND QUALITY: Low  PLANT SPECIES  STRATUM NDICATOR PERCENT COVER  1. Lecrsia ortyzoides Herbaccous Obligate 50 % 3. Typha latifolia Herbaccous Obligate 50 % 3. Typha latifolia Herbaccous Obligate 50 % 5. % 6. Herbaccous Obligate 50 % 9. % 6. Herbaccous Obligate 100 % 9. % 9. % 9. % 9. % 9. % 9. % 9. % 9.
PLANT SPECIES STATUM INDICATOR PERCENT COVER  1. Leersia cryzoides Chiigate 20 % 2. Scirpus arrownes Herbaceous Obligate 50 % 3. Typha latifolia Herbaceous Obligate 50 % 4.
PLANT SPECIES STRATUM INDICATOR PERCENT COVER  1. Leersia ortzoides Herbaccous Obligate 20 % 2. Scirpus atrovirens Herbaccous Obligate 50 % 3. Typha latiolia Herbaccous Obligate 30 % 4.
Lecisia oryzoides
3. Typha latifolia 4. Herbaceous Cobligate 30 % 4. % 5. % 6. % 7. ** 6. ** PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, FACW, FACH, OR FAC (EXCLUDING FAC-): 100  VEGETATION REMARKS: drainage ditch  HYDROLOGY  RECORDED DATA?  DEFITH OF SURFACE WATER: N/A (in) DEFITH TO SATURATED SOIL: 0 (in)  DEFITH TO FACE WATER IN PIT: 1 (in)  PRIMARY WETLAND INDICATORS: SRUCHARY WETLAND INDICATORS: SATURATED Upper 12in Drainage Patterns Cox Root Channels  REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoyfville silty clay, 0 percent slopes (flats)  PROFILE DESCRIPTION  DEFTH (INCHES) HORIZON  MATRIX COLOR (MUNSELL MOIST)  TEXTURE, CONCRETIONS, STRUCTURE, ETC.
4.
5. 6. % FRECENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW+, FACW-, FAC+, OR FAC (EXCLUDING FAC-): 100  WEGETATION REMARKS: drainage ditch  HYDROLOGY  RECORDED DATA? DEFITH OF SURFACE WATER: N/A (in) DEPTH TO SATURATED SOIL: 0 (in)  DEPTH TO FREE WATER IN PIT: 1 (in)  PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: SATURATED VETTOR SATURATED SOIL: 0 (in)  PRIMARY WETLAND INDICATORS: SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoyfville silty clay, 0 percent slopes (flats)  DRAINAGE CLASS: Very poorly drained  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MATPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  MATRIX COLOR (MUNSELL MOIST) TEXTURE, CONCRETIONS, STRUCTURE, ETC.
6. PERCENT OF DOMINANT SPECIES THAT ARE OBL, FACW, FACW, FACW, FACY, or FAC (EXCLUDING FAC-): 100  VEGETATION REMARKS: drainage ditch  HYDROLOGY  RECORDED DATA? DESCRIBE:  DEPTH OF SUREACE WATER: N/A (in) DEPTH TO SATURATED SOIL: 0 (in)  DEPTH TO FREE WATER IN PIT: 1 (in)  PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: Saturated Upper 12in FAC Neutral Test Oxi Root Channels  SOILS  MAP UNIT NAME (SERIES AND PRASE): Hoytville sitty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  MATRIX COLOR (MUNSELL MOIST) FEXTURE, CONCRETIONS, STRUCTURE, ETC.
Negetation Remarks: drainage ditch
Negetation Remarks: drainage ditch
DEPTH OF SURFACE WATER: N/A (in)  DEPTH TO FREE WATER IN PIT: 1 (in)  PRIMARY WETLAND INDICATORS: SECONDARY WETLAND INDICATORS: Saturated Upper 12in FAC Neutral Test Oxi Root Channels  REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flate)  DRAINAGE CLASS: Very poorly drained  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPTED TYPE. IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  TEXTURE, CONCRETIONS, STRUCTURE, ETC.
DEPTH OF SURFACE WATER: N/A (in)  DEPTH TO FREE WATER IN PIT: 1 (in)  FRIMARY WETLAND INDICATORS:  SECONDARY WETLAND INDICATORS:  SATURATED Upper 12in  FAC Neutral Test  Oxi Root Channels  REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  MATRIX COLOR MOTTLE COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  STRUCTURE, ETC.
DEPTH TO FREE WATER IN P.T.: 1 (in)  PRIMARY WETLAND INDICATORS:  Saturated Upper 12in  FAC Neutral Test  Oxi Root Channels  REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville sitty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  MOTTLE COLOR (MUNSELL MOIST)  SECONDARY WETLAND INDICATORS:  FAC Neutral Test  Oxi Root Channels  DRAINAGE CLASS: Very poorly drained  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  TEXTURE, CONCRETIONS, STRUCTURE, ETC.
PRIMARY WETLAND INDICATORS:  Saturated Upper 12in  FAC Neutral Test  Oxi Root Channels  REMARKS: drainage ditch  SOILS  MAP UNIT NAME (Series and Phase): Hoytville sitty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MATRIX COLOR (MUNSELL MOIST)  SECONDARY WETLAND INDICATORS:  FAC Neutral Test  Oxi Root Channels  DRAINAGE CLASS: Very poorly drained  TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  FROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  STRUCTURE, ETC.
Saturated Upper 12in
Drainage Patterns  REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST) MOTTLE COLOR (MUNSELL MOIST)  STRUCTURE, ETC.
REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoyfville silty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPTED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST) TEXTURE, CONCRETIONS, STRUCTURE, ETC.
REMARKS: drainage ditch  SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoyfville silty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPTED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST) TEXTURE, CONCRETIONS, STRUCTURE, ETC.
SOILS  MAP UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPPED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST) MOTTLE COLOR (MUNSELL MOIST) STRUCTURE, ETC.
MAP UNIT NAME (SERIES AND PHASE): Hoytville sitty clay, 0 percent slopes (flats)  TAXONOMY (SUBGROUP): FIELD OBSERVATIONS CONFIRM MAPTED TYPE, IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST) MOTTLE COLOR (MUNSELL MOIST) STRUCTURE, ETC.
TAXONOMY (SUBGROUP):  FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?  PROFILE DESCRIPTION  DEPTH (INCHES)  HORIZON  MATRIX COLOR (MUNSELL MOIST)  MOTTLE COLOR (MUNSELL MOIST)  TEXTURE, CONCRETIONS, STRUCTURE, ETC.
PROFILE DESCRIPTION  DEPTH (INCHES) HORIZON MATRIX COLOR (MUNSELL MOIST) MOTTLE COLOR (MUNSELL MOIST) TEXTURE, CONCRETIONS, STRUCTURE, ETC.
DEPTH (INCHES) HORIZON MATRIX COLOR MOTTLE COLOR TEXTURE, CONCRETIONS, (MUNSELL MOIST) STRUCTURE, ETC.
DEPTH (INCHES) HORIZON (MUNSELL MOIST) (MUNSELL MOIST) STRUCTURE, ETC.
0-12+ B 10YR 4/1 7.5YR 4/6 Silt Loam
Hydric Soil Indicators:
Gleyed
REMARKS:
WETLAND DETERMINATION
HYDROPHYTIC VEGETATION PRESENT? Yes Is This Sampling Point Within a Wetland? Yes
WEILAND HYDROLOGY PRESENT? Yes IS THIS AN ISOLATED WEILAND? No
Hydric Soils Present? Yes
NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: NO POTENTIAL PROBLEM AREA? NO
NORMAL CIRCUMSTANCES? Yes SIGNIFICANTLY DISTURBED: No POTENTIAL PROBLEM AREA? NO  DESCRIPTION OF WETLAND CROSSING TYPES AND WETLAND QUALITY CRITERIA

are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation. hydrology and/ or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or solls - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

## CH2MHILL

# ROUTINE WETLAND DELINEATION DATA FORM (1987 COE METHODOLOGY) - UPLAND POINT

SURVEY TYPE: Blue	e Creek						ID ID NO.:			
DATE: 10/14/2009			CTIENT/P	ROJECT NAME:	Heartla					
									- ELIT	
Investigators: Hook			STATE/CO	Ohio/V	TY: Ohio/Van Wert Quad Name: Convoy					
Huc 12 Code: 041000070	703		Townshi	r: Union			Рното No.:	013		
Wetland Quality: N/A						NO TYPE: N/A E: Upland				
	PLANT SPE	CIES			1	STRATUM	lnı	DICATOR	PERCENT COVER	
Festuca sp.						Herbaceous		ac Up	40 %	
Bromus inermis     Daucus carota			` `			Herbaceous		Jpland Jpland	50 % 10 %	
4.						Herbaceous		piano	10 % %	
5.									%	
6.	<u></u>								%	
PERCENT OF DOMINANT	SPECIES THAT A	RE OBL,	FACW, FA	CW+, FACW-,	FAC+, O	r <b>FAC</b> (exclue	ING FAC-): 0			
VEGETATION REMARKS:										
					HYDE	ROLOGY				
RECORDED DATA?			<u> </u>	DESCRIBE:		·				
DEPTH OF SURFACE WAT	ER: N/A	A (in)				DEPTH TO SATE	RATED SOIL:	>16 (in)		
DEPTH TO FREE WATER I	N PIT: Nor	ne (in)		<del></del>		·				
PRIMARY WETLAND IND	CATORS:				s	SECONDARY WI	TLAND INDIC	ATORS:		
None										
				<del></del>		<del></del>	<del></del>			
Remarks:								<u> </u>		
						OIL5				
MAP UNIT NAME (SERIES	MAF UNIT NAME (SERIES AND PHASE): Hoytville silty clay, 0 percent slopes (flats)  DRAINAGE CLASS: Very poorly drained									
TAXONOMY (SUBGROUF): FIELD OBSERVATIONS CONFIRM MAPPED TYPE. IF NO, SOIL TYPE ENCOUNTERED?										
				Pro	FILE D	DESCRIPTI	ON			
DEPTH (INCHES) HORIZON MATRIX COLOR MOTTLE COLOR TEXTURE, CONCRETIONS, (MUNSELL MOIST) STRUCTURE, ETC.										
0-12+	A			2.5y 4/3	/3 Silty Clay Loam					
Hydric Soil Indicators:										
		ــــــــــــــــــــــــــــــــــــــ			<u> </u>	<u> </u>		<u></u>		
Remarks:										
				WETLA	ND DI	ETERMIN	ATION			
HYDROPHYTIC VEGETAT	ON PRESENT?	No		Is This San	IPLING P	OINT WITHIN A	WETLAND?	No		
WETLAND HYDROLOGY	RESENT? No			Is This An	ISOLATE:	DWETLAND?	V/A			
HYDRIC SOILS PRESENT?	No									
NORMAL CIRCUMSTANC	ES? Yes			SIGNIFICAN	TLY DIST	TURBED: No		POTENTI	IAL PROBLEM AREA? No	
D	ESCRIPTIC	N OF	WETLA	ND CROS	SING	TYPES AN	D WETL	AND QU	JALITY CRITERIA	
1 -				· · · · · · · · · · · · · · · · · · ·				7	<del></del>	

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas - slightly altered natural vegetation, hydrology and/or soil characteristics - provides suitable habitat for wildlife and vegetation - associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly affected plant species – community composition has changed – noticeable stress or death of plant species – soil subsidence may have occurred in areas with decreased hydroperiod – mechanical alteration of plant species or soils – grazing from livestock – channelization of stream courses or disching – little suitable habitat for wildlife and vegetation – associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Fleid Form	Quantitative Rating	<u> </u>			
Site: WRICH	cx	Rater(s):	RHOOK		Date: 10/14/09
السساسيون	etric 1. Wetland A ect one size class and assign acc >50 acres (>20.2hs) (6 pts 25 to <50 acres (10.1 to < 10 to <25 acres (4 to <10.4 3 to <10 acres (1.2 to <4hc 0.3 to <3 acres (0.12 to <1 0.1 to <0.3 acres (0.04 to <	ore. )) 20.2ha) (5 pts) (ha) (4 pts) a) (3 pts) .2ha) (2pts) 40.12ha) (1 pt)	1.0 ac	re.	
, 3 M	etric 2. Upland bu	'	surroundir	azıı hasl na	
max 14 pts. subtotal 2g,	Calculate average buffer width.  WIDE. Buffers average 50 MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average Werry LOW. 2nd growth of LOW. Old field (>10 years MODERATELY HIGH. Re HIGH. Urban, industrial, o	Select only one as om (164R) or more 25m to <50m (82 ps 10m to <25m ( average <10m (< a. Select one or dor older forest, prair b), shrubland, your sidential, fenced p	nd assign score. Do around wetland particle to <164ft) around was 32ft to <82ft) around was 32ft) around wetland louble check and aveing, savannah, wikliffing second growth fon esture, park, conser	not double check, meter (?) etland perimater (4) wettand perimeter (1) perimeter (0) rage. e area, etc. (?) ast. (5) vation tillage, new falk	, ,
10 13 M	etric 3. Hydrology	<b>/-</b>			
<b>3c</b> .	Sources of Water. Score all the High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/intermittent surface water (Is Mandmurn water depth. Select o >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) \$\int <0.4m (<15.7in) (1)	ace water (3) ike or stream) (5) nly one and assign ) (2)	. 3d. D	Part of wetland/u Part of riperian or uration inundation/sat Semi- to perman Regularly inundation/seasonally satura	in (1) lake and other human use (1) pland (e.g. forest), complex (1) rupland comidor (1) uration. Score one or dbl chec ently inundated/saturated ( led/saturated (3)
3e.	Modifications to natural hydrolog  None or none apparent (12 Recovering (3) Recovering (3)		irbances observed	point source (nor filling/grading road bed/RR trac dredging other	stormwater)
mex 20 phs. subtotal 4a.	etric 4. Habitat A  Substrate disturbence. Score or None or none apparent (4) Recovered (3) Recent or no recovery (1) Habitat development. Select on Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) Habitat alteration. Score one or	<b>Iteration a</b> ne or double check by one and assign	and Develop and average. score.		
20	None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	mowing grazing clearcutti	culting abris removal	shrub/sapiling ren harbaceous/aqua sadimentation dredging farming nutrient enrichme	tic bed removal

Site:	WRICHCA	Rater(s):	P	HOOK	Date: /0/14/09
	20				
	Aubtotal first page				
	Zo Metric 5. Spe	cial Wetlands.			
mex 10 pts.	subtotal Check all that apply and so	core as indicated.			
	Bog (10)			•	
	Fen (10)				
	Old growth fores				
	Mature forested			deale are (4.0)	
		sViributary wetland-unrestri sViributary wetland-restricte		• • •	
		Prairies (Oak Openings) (		logy (b)	•
	Relict Wet Prairi		10)		
		ce state/federal threatened	crend	annered stracies (10)	
		story songbird/water fowt he			
		and. See Question 1 Qual			
3	23 Motric 6 Plan	t communities	: int	erspersion, mic	rotonogranhy
			-	•	otopograpny.
mest 20 pts.	subtobal 6a. Wetland Vegetation C			Community Cover Scale	- MATT
	Score all present using 0 to	0 2 acmer	0		a (0.2471 acres) contiguous area
	Aquatic bed		1	Present and either comprise	es small part or webland s erate quality, or comprises a
	# Emergent			significant part but is of to	· · · · · · · · · · · · · · · · · · ·
	Forest		2		es significant part of welland's
	Mudifiets		_	•	arate quality or comprises a small
	Open water			pert and is of high quality	
	Other	<del></del>	3		hiticant part, or more, of wetland's
	6b. horizontal (plen view)	Interspersion.	•	vegetation and is of high	
	Select only one.				
	High (5)	Nam	rative D	escription of Vegetation Qui	
	Moderately high	•	low		edominance of nonnative or
	Moderate (3)	•		disturbence tolerant native	
	Moderately low (	(2)	mod	Native spp ere dominent co	mponent of the vegetation,
	Low (1)			although nonnative and/or	r disturbance tolerant native spp
	None (0)			•	species diversity moderate to
	6c. Coverage of invasive				erally w/o presence of rare
	to Table 1 ORAM long form	` <u></u>		threatened or endangered	
	or deduct points for covera	•	high	A predominance of native s	
	Extensive >75%	· ·			nt native spp absent or virtually
	Moderate 25-75	· •			reity and often, but not always,
	Sparse 5-25% o			the presence of rare, three	atened, or endangered spo
	Nearly absent <				
	Absent (1) 8d. Microtopography.	PRELIC	O O	Open Water Class Quality Absent <0.1he (0.247 acre	<del></del>
	Score all present using 0 to	- 2 mondo	1		
	Score all present using 0 to Vegetated humin			Low 0.1 to <1ha (0.247 to 2 Moderate 1 to <4ha (2.47 to	
		ebris >15cm (6in)	3	High 4ha (9.88 acres) or mo	
		25cm (10in) dibh	-	TI STELL THE TOYOU SCHOOL OF THE	4 4
	Amphibian bress	• •	rendy rene	raphy Cover Scale	
	Tatibutases of con		0	Absent	

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GRAND TOTAL (max 100 pts)

Rater to the most recent ORAM Score Calibration Report for the scoring breekpoints between welfand categories at the following address: http://www.epu.skabs.ch.us/dew/401/401.html last revised 1 February 2001 jjm

3

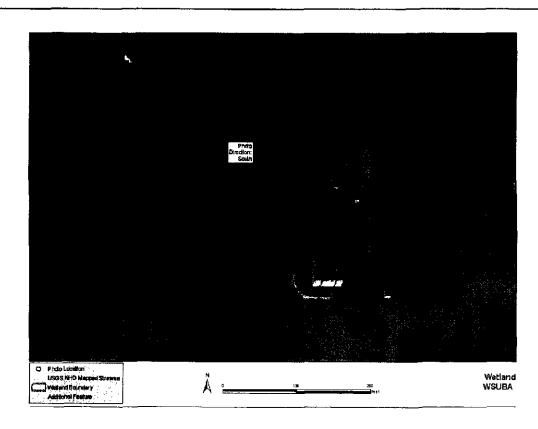
Present very small amounts of if more common

Present in moderate amounts, but not of highest quality or in small amounts of highest quality

Present in moderate or greater amounts

of marginal quality

and of highest quality





Wetland WSUBA



SURVEY TYPE: Blu	e Crook W	ind E	arm.			JA/Torr An	ın II	No · WELLS		· · · · · · · · · · · · · · · · · · ·
SORVER THE DIRECTICER WHICH FAIR						WETLAND ID NO.: WSUBA ASSOCIATED STREAM ID NO: N/A				
DATE: 10/15/2009	CLIENT/PROJI	OJECT NAME: Heartland Wind LLC./ Blue Creek Wind Farm								
INVESTIGATORS: R Hook STATE/COU				OUNTY: Ohio/Van Wert		ROVER FILE: 0			QUAD NAME: Scott	
Huc 12 Code: 041000070703 Township:				Hoaglin	<u> </u>		PHO	TO No.: 0	.=	
WETLAND QUALITY: LOT	W			·	WETLAND TYPE: Palustrine SUBTYPE: Emergent					
	PLANT SPE	CIES			STRATUM INDICATOR				l .	PERCENT COVER
1. Zea mays					Herbaceous			Upland		40 %
2. Setaria faberi					Herbaceous			Upland		10 %
3. Setaria glauca					Herbaceous			Fac		10 %
4. Cyperus esculentus 5. Polygonum pensylva	nicum			<del></del>	Herbaceous Herbaceous			Fac wet		10 % 10 %
6. Chenopodium album								Fac Up		25 %
PERCENT OF DOMINANT		pc ORI	FACW FACW	4 EACTAL			mc F		•	
Vegetation Remarks:		<u>KC ODE</u>	111011/11101	· //IRCH	THEITOR	THE LENGLOS	21101			
	HYDROLOGY									
RECORDED DATA?			Des	SCRIBE:						_
DEPTH OF SURFACE WAT	ter: N/	A (in)			Di	PTH TO SAT	RATE	9 <b>S</b> O(L: >16 (in)		
DEPTH TO FREE WATER I	IN PIT; Noi	ne (in)		<u>-</u>						
PRIMARY WETLAND IND	ICATORS:				SECONDARY WETLAND INDICATORS:			D INDICATORS:		
None		a			Local Soil Survey					
		0			Other 0					
REMARKS: farmed, sup	pressed crop				1					
					So	ILS				
MAP Unit Name (Serie	S AND PHASE):	Hoytvill	e clay, 0 percen	t slopes (fl	ats)				Draina	GE CLASS: Very poorly drained
TAXONOMY (SUBGROUP)	):		Field Of	SERVATIO!	NS CONFIRM	1 Mapped Ty	PE. LF	No, Soil Type Encou	NTERED	?
			·	Pro	FILE DI	SCRIPTI	ON		<u>-</u>	
DEPTH (INCHES)	Horizo	N	MATRIX COL (MUNSELL MO					TLE COLOR SELL MOIST)		TEXTURE, CONCRETIONS, STRUCTURE, ETC.
0-9	A			2.5Y 3/3	,,,,,,,,,,					Silt Loam
9+	В			10YR 4/1		10YR 4/6 20%		4/6 20%		Clay Loam
Hydric Soil Indicator	R5:									
Listed Hydric Gleyed										
Remarks:										
			1	WETLA	ND DE	TERMIN	ATIC	ON		
HYDROPHYTIC VEGETATION PRESENT? No IS THIS SAMPLING POINT W.							Wer	AND? Yes		
						ISOLATED WETLAND? Yes				
Hydric Soils Present?			<del></del>					_		
					<del></del>				TIAL PROBLEM AREA? Yes	
<u>D</u>	ESCRIPTIO	ON OF	WETLAN	D CROS	SSING T	YPES AN	D V	VETLAND QUA	ALITY	CRITERIA
HIGH QUALITY WETI	AND: no indic	ation of	stress or disturi	bance in w	etland or ac	diacent area -	- dive	rse and mature veget	ation ty	pes – hydrologic and soil indicators

HIGH QUALITY WETLAND: no indication of stress or disturbance in wetland or adjacent area – diverse and mature vegetation types – hydrologic and soil indicators are characteristic of the specific community type – provides suitable habitat for wildlife – high quality perennial streams are often observed.

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation,

MODERATE QUALITY WETLAND: mild to moderate disturbances have caused alterations in immediately adjacent areas – slightly altered natural vegetation, hydrology and/ or soil characteristics – provides suitable habitat for wildlife and vegetation – associated perennial or intermittent streams are of relatively good quality and aren't significantly disturbed.

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology – hydroperiod alterations, if present, have directly

LOW QUALITY WETLAND: severe disturbances have caused significant changes to vegetation, soils, or hydrology - hydroperiod alterations, if present, have directly affected plant species - community composition has changed - noticeable stress or death of plant species - soil subsidence may have occurred in areas with decreased hydroperiod - mechanical alteration of plant species or soils - grazing from livestock - channelization of stream courses or ditching - little suitable habitat for wildlife and vegetation - associated perennial or intermittent streams significantly disturbed.

ORAM v. 5.0 Field Fo	m Quantitative Rating			
Site: W.S	UBA	Rater(s): P Hec	<u> </u>	Date: 10/15/09
00	Metric 1. Wetland	Area (size).	•	
max 6 pts. authoral	Select one size class and assign so   >50 acres (>20.2he) (6 pt   25 to <50 acres (10.1·to < 10 to <25 acres (4 to <10   3 to <10 acres (1.2 to <4   0.3 to <3 acres (0.12 to <4   0.1 to <0.3 acres (0.04 to <2   0.1 acres (0.04ha) (0 pts   0.1 acres (0.	ore. s) (20.2ha) (5 pts) (1ha) (4 pts) (a) (3 pts) (1.2ha) (2pts) <0.12ha) (1 pt) (1)  Uffers and surrouselect only one and assign so	ore. Do not double check.	B.
	MEDIUM. Buffers average NARROW. Buffers average VERY NARROW. Buffers average VERY NARROW. Buffers average VERY LOW. 2nd growth LOW. Old field (>10 year MODERATELY HIGH. R	Om (164ft) or more around well ie 25m to <50m (82 to <164ft) a ge 10m to <25m (32ft to <82ft) is average <10m (<32ft) around ie. Select one or double check or older forest, prairie, asvanna is), shrubland, young second gradiential, fenced pasture, park open pasture, row oropping, mit	round wetland perimeter (4) around wetland perimeter (0); and average, th, wildlife area, etc. (7) towth forest. (5); conservation tillage, new forest.	(1)
	Metric 3. Hydrolog 3a. Sources of Water. Score all the	<del>-</del>	3b. Connectivity, Score	
	High pH groundwater (5)  Other groundwater (3)  Precipitation (1)  Seasonal/intermittent sur	face water (3) ake or streem) (5)	Part of wetters Part of riparier	piain (1) milake and other human use (1) Vupland (e.g. forest), complex (1) I or upland comidor (1) Isaluration. Score one or dbl ches
	3c. Meximum water depth. Select >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6ii <0.4m (<15.7in) (1) 3e. Modifications to astural hydrological control of the c	n) (2)	Regularly Inun Seasonally Inu Seasonally sal	enently inundated/seturated (dated/seturated (3) indeted (2) turated in upper 30cm (12th) (1)
·	None or none apparent (1 Recovered (7) Recovering (3) Recent or no recovery (1)	2) Check all disturbances ob gitch	served	nonstormwater) rack
3 10 max 20 pts. subtotal	Metric 4. Habitat A		•	
·	None or none appearant (4 Recovered (3) Recovering (2) Recent or no recovery (4) Habitat development. Select of Excellent (7) Very good (6)	)		
	Good (5)  Moderately good (4)  Fair (3)  Psor to fair (2)  Poor (†)  4c. Habitat alteration. Score one o			
IP subtoted this par	None or none apparent (9 Recovered (8) Recovering (3)  Recent or no recovery (1)	mowing grazing	shrub/sepling in herbaceous/so sedimentation dredging	ruatic bed removal

ORAM V.	5.0	Fleid	Form	Quantitutive	Ratino
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Site:	1.1 C4 10 A	Detavial: A	I family	Date: 10/15/09
Olle.	WSUBA	Rater(s): 2	Took	Date: 10/15/09
	10			
	_/O Metric 5. Speci	iai Wetlands.		
глах 10 phs.	Bog (10)  Fen (10)  Cld growth forest (  Mature forested we  Lake Erie coastal/t  Lake Plain Sand P  Relict Wet Prairies  Known occurrence  Significant migrato	re as indicated.  10)  atland (5)  ributary wetland-unrestricted by ributary wetland-entricted by ributary wetland-restricted by ributary wetland-restricte	ology (5) langered species (10) r usege (10)	,
	12 Metric & Dient		ta-amanalan melamat	
		•	terspersion, microt	opograpny.
mex 20 pm.	substate 6a. Wetland Vegetation Con Score all present using 0 to 3		Absent or comprises <0.1ha (0.2	A71 acrae) continuose area
	Aquetic bed	1	Present and either comprises an	
	/ Emergent	-	vegetation and is of moderate	•
	Shrub		significant part but is of low qu	ality
	Forest	2	Present and either comprises sig	
	Mudflats		vegetation and is of moderate	quality or comprises a small
	Open water		part and is of high quality	
	Other	. 3	Present and comprises significa	-
	6b. hortzontal (plan view) Int Select only one.	erspersion.	vegetation and is of high qualit	<u> </u>
	High (5)	Mercethes I	Description of Vegetation Quality	
	Moderately high(4)		Low spp diversity and/or predom	insoce of nonnative or
	Moderate (3)		disturbance tolerant native ape	
	Moderately low (2)	mod	Native spp are dominant compo	
	Low (1)		aithough nonnative and/or dist	urbance tolerant native spp
	None (0)		can also be present, and spec	les diversity moderate to
	<ol><li>6c. Coverage of invasive pla</li></ol>		moderately high, but generally	w/o presence of rare
	to Table 1 ORAM long form 1		threatened or endangered spp	
	or deduct points for coverage		A predominance of native specie	
	Extensive >75% co		and/or disturbance tolerant nat	
	Moderate 25-75%	* **	absent, and high spp diversity	
•	Sparse 5-25% oow Ngarly absent <5%		the presence of rare, threatene	o, or engangered app
	Absent (1)		d Open Water Class Quality	
	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	<del></del>
	Score all present using 0 to 3	scale. 1	Low 0.1 to <1ha (0.247 to 2.47 a	Cres)
	Vegetated hummu	cks/tussucks 2	Moderate 1 to <4hs (2.47 to 9.8	8 acres)
	Coarse woody deb	ris >15cm (6in) 3	High 4ha (9.88 acres) or more	
	Standing dead >25			
	Amphibian breedin		rephy Cover Scale	
		0	Abservt	
		1	Present very small amounts or if	mare common
			of marginal quality	محمد المراجع ا
		2	Present in moderate amounts, be	
		3	quality or in small amounts of I  Present in moderate or greater a	
	•	J	and of highest quality	a tarkent toes
1121	GRAND TOTAL (max 100	ntel	- The state of the	
	SINGLE CONTRACTOR	, hraj		

Refer to the most recent CRAM Score Calibration Report for the according breakpoints between welland categories at the following address: http://www.epe.state.ch.ua/dsw/401/901.ntml lest revised 1 February 2001 jjm